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Sight & Sound
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Adventure
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50 games you've got to have

WIN an ST!

3 complete Atari systems up for grabs - see page 28

WHICH CONSOLE?

Atari
v.
Sega
v.
Nintendo

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WHEN YOU DECIDE TO EMBARK ON THIS ADVENTURE YOU WILL FACE **KAIKAS** (MUTATING KANGAROOS) **ORCOS** (FIERCE MONSTERS OF THE PLANET DEDRON), **LEISER-FREISERS** (AUTONOMOUS SEARCH ANDROIDS EQUIPPED WITH TELESCOPIC CAMERAS AND TURBO-LASER CANNON), **GARKLAS CLONICOS** (SPECIALISTS IN FOLLOWING TRAILS THROUGH THE SWAMP JUNGLE) ... A WORLD FULL OF DANGERS. A CHALLENGE FOR THE BRAVE ... A CHALLENGE ONLY FOR HEROES. **GAME OVER**

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ATHENA
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FROM THE ARCADES COMES A TIGRESS... **ATHENA** A HEROINE WHO CAN TAKE CARE OF HERSELF. TRANSPORTED TO A STRANGE FORBIDDING LAND, THIS BOLD ORIENTAL PRINCESS MUST BATTLE FOR SURVIVAL AGAINST THE DENIZENS OF SIX DIFFERENT WORLDS; FOREST, CAVERN, SKY, LABYRINTH, SEA AND HELL TO REACH THE FINAL CONFLICT WITH THE **DARK OVERLORD** AND BE RELEASED FROM HIS MACABRE SPELL. THE BLOOD OF A HUNDRED SAMURI RUN THROUGH HER VEINS AS STEELING HERSELF AGAINST THE HORRORS TO COME SHE SETS FORTH ON THE PERILOUS QUEST!

e name
e game

Screen shots taken from various computer formats

ATHENA © SNK ELECTRONICS CORP.

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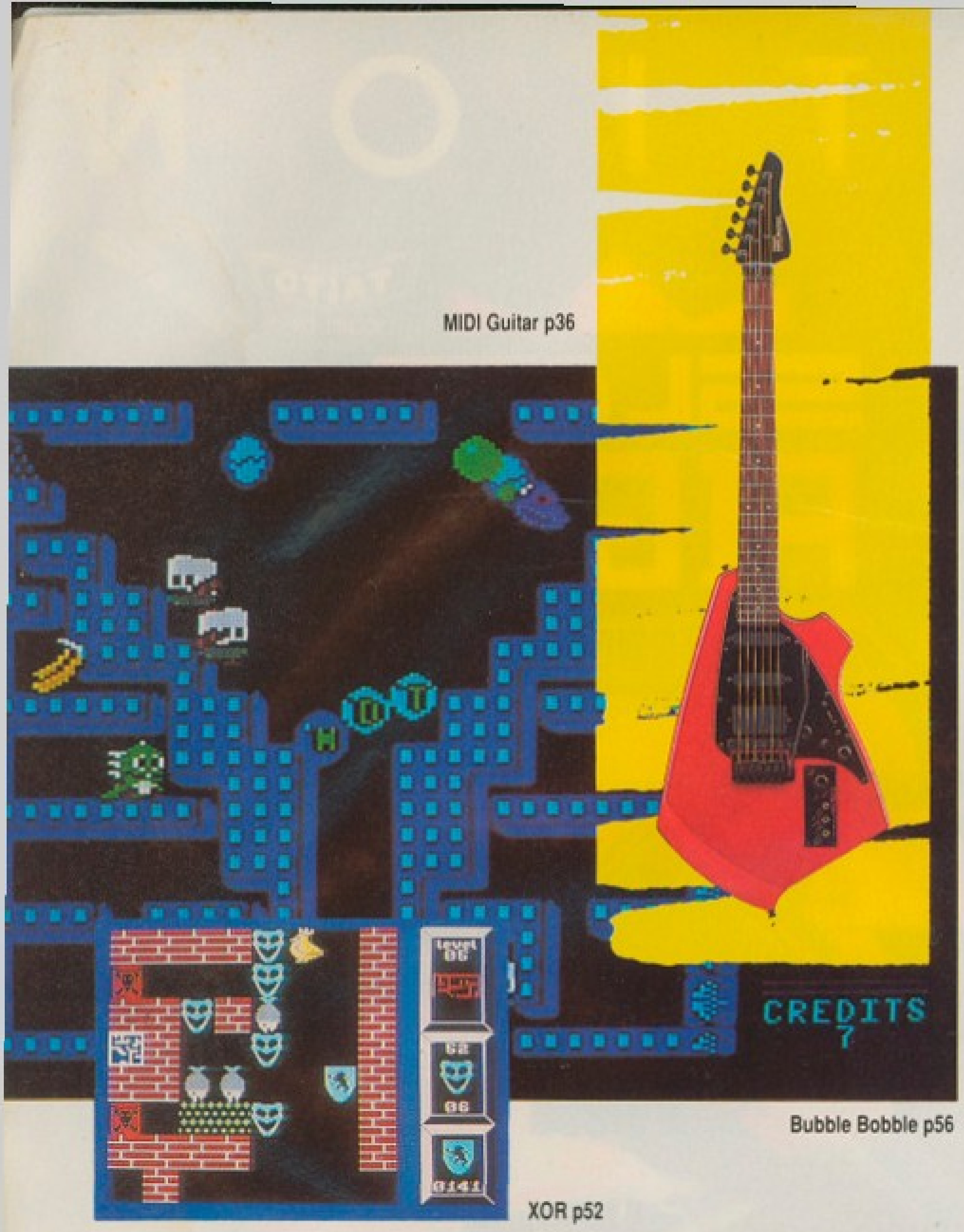
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COVER CASSETTE

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The tricks, the tactics, the pokes you've got to read if you want to get the better of the big games. *Stay alive* in **Barbarian,** *crack* the codes for ST **Sentinel**, *bounce* through Gremlin's **Bounder**, make it to *the top* in **Defender of the Crown**, *break through* those problem screens in **Arkanoid.**

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ACE

Stop right here...

...SO we can welcome you to Britain's hottest computer entertainment magazine.It comes to you courtesy of the team who produced the legendary Personal Computer Games, a group of people who now believe that gamesplayers are crying out for a new kind of magazine. Here it is...

On these pages you'll find a new world of possibilities for squeezing the maximum thrill-power out of your micro. A new way of looking at games software; plus special sections on graphics and music-making with MIDI - all brought to you by people who believe that computer entertainment is at last coming of age.

That means there are quite a few things you WON'T find on these pages....you won't find kiddy comic-style reviews that treat you like a five year old; you won't find page upon page of incomprehensible programmer-speak; you won't find endless little competitions with pathetic prizes.

What you will find is a magazine that realises that computing is no longer just for boffins and that computer entertainment is no longer just for kids. ACE is for everyone who thinks computers can be fun - and that means you.

So read on, and we'll take you further into the world of sight, sound, and games than any magazine has taken you before. What more could you want - except Issue 2?

79.................................. Adventures
The Pilgrim takes you by the hand and guides you through the world of adventures. This month he gives you an in-depth review of ***Knight Orc*** from Level 9/Rainbird andpresents the first of a series of Playing Guides to the big adventures – this issue***Guild of Thieves*** .

BUY LINES

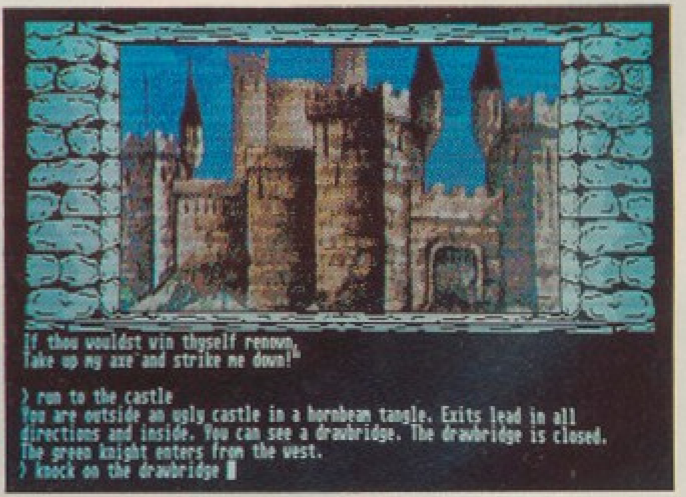
94..............................Special Offers
We're offering you huge discounts on top software in our Special Offer pages. Can you afford to ignore savings of up to £2.00 on a *single* game?

71................................Buyers'Guide
We name the 50 games you just can't do without.

95.......................Subscription Offer
Subscribe to ACE – and get a £10.00 software discount. You know it makes sense.

COMPETITION

28...................................ST stunner
ACE and Atari are giving you the chance to win one of three complete ST systems. Don't miss out.



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If thou wouldst win thyself renown,
Take up my axe and strike me down!"

> run to the castle
You are outside an ugly castle in a hornbeam tangle. Exits lead in all
directions and inside. You can see a drawbridge. The drawbridge is closed.
The green knight enters from the west.
> knock on the drawbridge █
```

Knight Orc p79

NOW FOR COMPUTER

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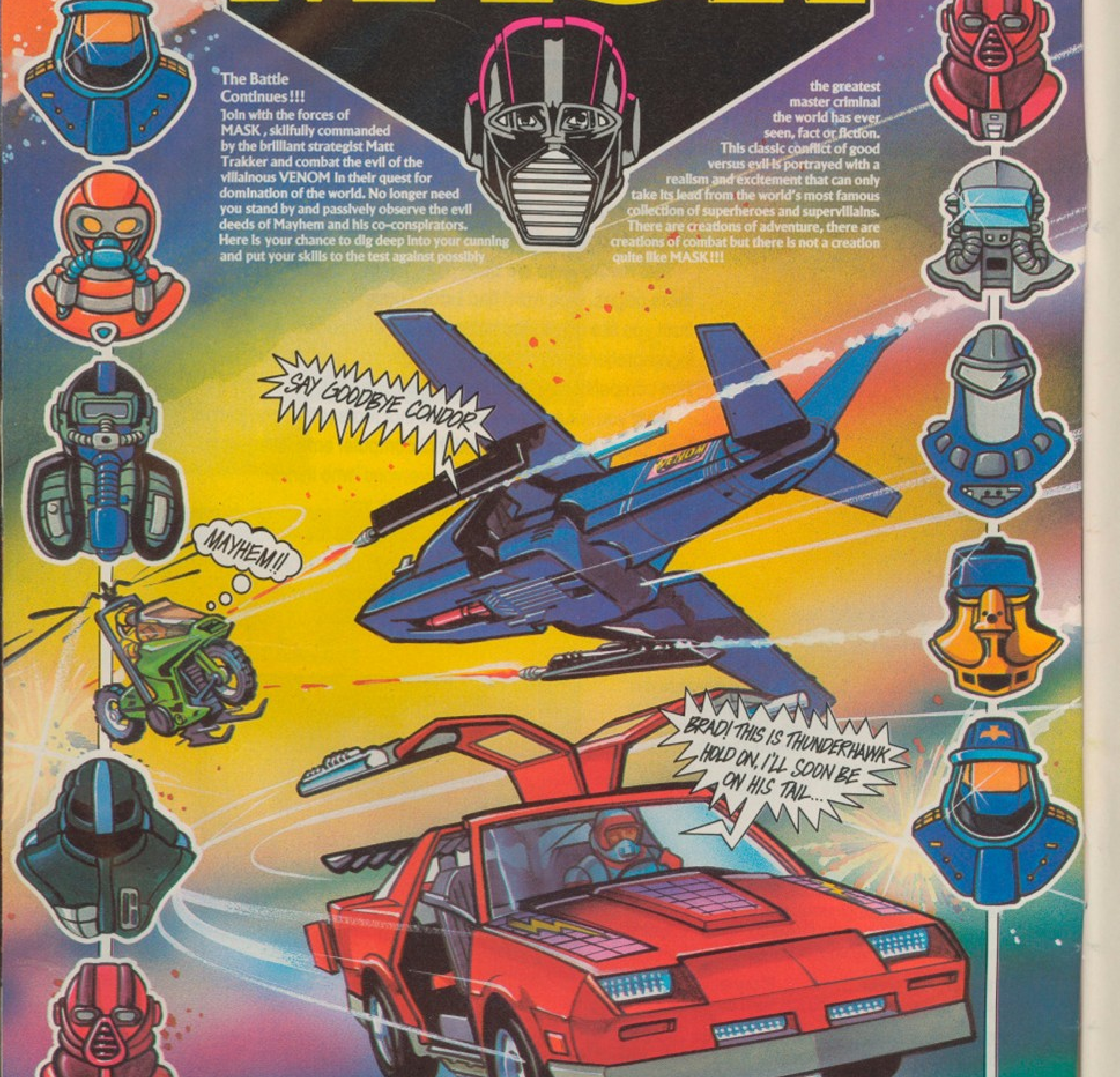
Join with the forces of MASK, skilfully commanded by the brilliant strategist Matt Trakker and combat the evil of the villainous VENOM in their quest for domination of the world. No longer need you stand by and passively observe the evil deeds of Mayhem and his co-conspirators. Here is your chance to dig deep into your cunning and put your skills to the test against possibly the greatest master criminal the world has ever seen, fact or fiction. This classic conflict of good versus evil is portrayed with a realism and excitement that can only take its lead from the world's most famous collection of superheroes and supervillains. There are creations of adventure, there are creations of combat but there is not a creation quite like MASK!!!


SAY GOODBYE CONDOR
VENOM
MAYHEM!!
BRAD! THIS IS THUNDERHAWK HOLD ON, I'LL SOON BE ON HIS TAIL...

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COVER CASSETTE

How to load and play our free cover games

SIDE A

BLUE MAX

US GOLD • C64

LOADING

Plug your joystick into Port 2. Rewind tape to beginning. Hold down the SHIFT key and press RUN/STOP. When the game has loaded, press fire to play or F3 for game options (see below). *Blue Max* is recorded twice on Side A of the tape, in case of loading difficulties.

THE SCENARIO

You are air-ace Max Chatsworth, known to your buddies as 'The Blue Max' – the name of the medal offered by the Axis powers to any pilot who can shoot you down! Your mission involves high-level bombing, air-to-air combat and strafing runs over heavily defended enemy territory. Are you up to the challenge?

PLAYING BLUE MAX

Controls :
Left - banks left
Right - banks right
Up - climb
Down - dive
(Set controls to 'Pilot' in game options to reverse these last two.)
Fire on its own uses the machine gun; fire & dive together releases a bomb.
Hit space bar to pause game.

GAME OPTIONS

Use F3 to select the option, and F5 to change it.

Take-off Press fire to start taxying, and then climb as soon as your speed reaches 100 mph. Don't try climbing earlier, or you're sure to crash.

Mission Objective Your mission is to destroy as many bridges, guns, buildings, ground vehicles, ships and planes as possible. Flashing targets are particularly important: you cannot move on to the next level until you've destroyed your quota of these. (When you have, the control panel will turn green and you should then land your plane.)

Bombing Dive and fire to release a bomb. You'll need to 'lead' targets more - drop your bomb earlier, that is - if you're bombing from high altitude.

StrafingFly at between 20 and 25 feet - the control panel will turn brown when you're low enough - and open fire on ground targets.

Dogfighting Climb or dive following the arrow on the right of the control panel, to match altitudes with your opponent - the control panel turns blue when you're at the right height. Now bank to line up on him, and open fire.

Landing Line your shadow up on the runway, and dive until you touch down. When your plane stops it will be refuelled automatically, and then any damage will be repaired. To abort this process and start taxying, press fire.

Control panel:
F - fuel remaining
B - bombs remaining
ALT - altitude
Below 20ft - dangerously low: control panel turns yellow as a warning
From 20-25ft - strafing altitude: control panel turns brown
Over 25ft - dogfight/bombing altitude: control panel is black, but turns blue if you're at the same altitude as an enemy plane
SPD = speed of plane
grey =below 100mph: do not try to take off
white =100-200mph: take off using 'climb' (push up on joystick with normal controls)

W - windy conditions: can blow you off course or make you gain height.
P - enemy plane approaching or on screen: an arrow on right of screen indicates above or below you.
L - approaching runway: prepare to land for refuelling and repairs.
Damage display:
M - manoeuvrability impaired.
G - machine-gun damaged: fires intermittently.
B - bomb release damaged: operates intermittently.
F - fuel leak.
Target Score
If you can reach 5000 within a week, you're pretty mean.

SIDE B

GIFT OF THE GODS

followed by demo of new Ocean games

OCEAN SPECTRUM 48/128

LOADING

48K Spectrum: to load type LOAD"", hit the ENTER key and press PLAY on the tape deck.
128K Spectrum: select 48K Basic and load as above. *Gift of the Gods* will **NOT** load using the 128K Tape Loader.

To load the demos, first load *Gift of the Gods*. Stop the tape as soon as the game loads, reset the computer and then load the demos following the loading instructions as for the game.

A second copy of *Gift of the Gods* is recorded at the end of Side A of the cassette, in case of loading difficulties on Side B

THE PLACE

The Palace of Mycenea in Ancient Greece

THE PLOT

Orestes, our hero, returns from exile to avenge his father's murder and rescue his sister Electra from the catacombs beneath the palace. To do this he must find six geometric shapes, and take them to the Guardian's chamber inside the catacombs.

His task is complicated in two ways. First, his evil mother Clytaemnestra stalks the catacombs intent on murdering Electra, so Orestes must find and protect his sister. Second, the evil demi-gods who inhabit the Guardian's chamber are determined to stop him. They have created monsters to sap his stamina, and false geometric shapes to confuse him. Only by killing monsters or seeking Electra's advice can he tell which shapes are real and which useless fakes.

The Olympian gods have equipped Orestes well for his task: they have given him a sword, winged boots and the Seven ears of Icarus - the latter for use in marking his way around the catacombs.

They tell Orestes 'Return to the Guardian's chamber when you find yourself weakening. If you kill a creature, the demi-gods' false shapes will disappear for a short while - use the time to find the real ones.'

CONTROLLING ORESTES

Select joystick or keys after loading. If you choose keys, any TOP row key acts as fire. Any SECOND row key is up and any THIRD row key down, while bottom row keys alternate between left and right.

While Orestes is on the ground: to go through a door, reverse direction in front of it and push up on the stick. To stab, hold fire down and press in the direction he's facing. To slice with the sword, press fire and pull down on the stick. To pick up, press fire and push up, and to drop something simply pull down. (You can only hold one shape at a time, and you can only drop shapes in rooms. In corridors the drop action leaves a tear of Icarus to mark Orestes's route.) Fire on its own stops Orestes in his tracks.

While Orestes is airborne, he cannot fight. Also, you must pull down and fire to drop an object in flight.

GIFT·FROM THE·GODS
WAKELIN'S

NEWS

All the news that counts from the world of computer entertainment

GO! for GOLD

Software magnates US Gold have just announced not only a wealth of games for the autumn but also a brand new label to publish them. It's called Go!, and unlike the main US Gold label it'll feature software written entirely in the UK.

Go! releases to watch out for include original titles and coin-op conversions, as well as games based on TV series, comic book heroes and toys.

Trantor - The Last Storm Trooper is a shoot-em-up with enormous sprites and nasty time limits. Your task: flamethrower your way to the heart of an alien planet. You'll meet stiff opposition (of course), and if you don't reach a computer terminal every 90 seconds you're dead. Sounds simple?

How about *Wizard Warz* then? It's a fantasy role-playing game demanding arcade skills as well as strategic elements, we're told. Battle monsters, fill your spell book and take on seven mighty sorcerers in your bid to become the boss Wiz.

The big news in the Go! schedules – surprise, surprise - comes from licensing deals. There are tie-ins with the Marvel comic strip *Captain America* - safeguarding democracy from the evil Dr Megalomann - and the feature film *Masters of the Universe*, based on the comic, doll, TV program etc. and featuring musclebound giant Dolph Lundgren.

If you always thought the Masters of the Universe TV series was just a half-hour advert for plastic He-Man toys, you'll immediately recognise the principle behind the new cartoon series *Bravestarr*. A cowboys-in-space epic set on the far-off planet of New Texas, the TV series (and accompanying Mattel toys) will be reaching the UK this autumn. Go! will be bringing us a Bravestarr computer game round about the same time.

Even more directly toy-related is the Go! licence for the infra-red shooting game *Lazer Tag*. The computer version will be a vertically scrolling tag-em-up involving both target and combat shooting.

For playability fans, the best news in the launch is a deal between Go! and coin-op magnates Capcom which should bring us some red-hot arcade conversions. Expect to see *Sidearms*, *Bionic Commandos* and *Speed Rumbler* on a computer near you soon.

As an added bonus, five of the titles will each have a rock track recorded on the B-side of the tape version. The tracks come from a specially commissioned session by rock-group Resister, and play through a normal hi-fi system.

Trantor: first out of the blocks for *GO!*

ALL TOGETHER NOW...

Punters at the British Music Fair could be seen wandering around with little scraps of paper from the Casio stand, a large number of which ended up on the floor. That's a pity, because they were carrying an invitation to support a national MIDI club, proposed by Casio as a means of generating mutual support and collaboration between MIDI users.

Since MIDI is one of those things that, sadly, appears more complex than it actually is, a second of user club interaction is worth an hour of boning up on MIDI techno-books, most of which are appallingly written either by Japanese synth-engineers who can't speak English, or English music journalists who won't. If you're interested in becoming involved, write to **Dave Clancey** of Casio at **Unit 6, 1000 North Circular Road, London, NW2 7JD.**

PREDATORY

Expect plenty of cardboard Arnold Schwarzeneggers at the PCW show folks - Activision have got the rights to his latest stateside blockbuster *Predator*, and they don't care who knows it! The screamingly successful film follows the exploits of a commando unit as they track down terrorists, rescue kidnapped diplomats and - weird, this - get killed by an alien.

How does this transfer to a computer game? See for yourself on stand 1417, and you'll also get a look at Activision's other hot properties. There'll be *Rampage*, a conversion from the Bally coin-op game; *Plundered Hearts* and *Beyond Zork*, both from Infocom. And if you're very lucky, a glimpse of the new System 3 Thai Boxing game *Bangkok Knights*.

CHEAP THRILLS

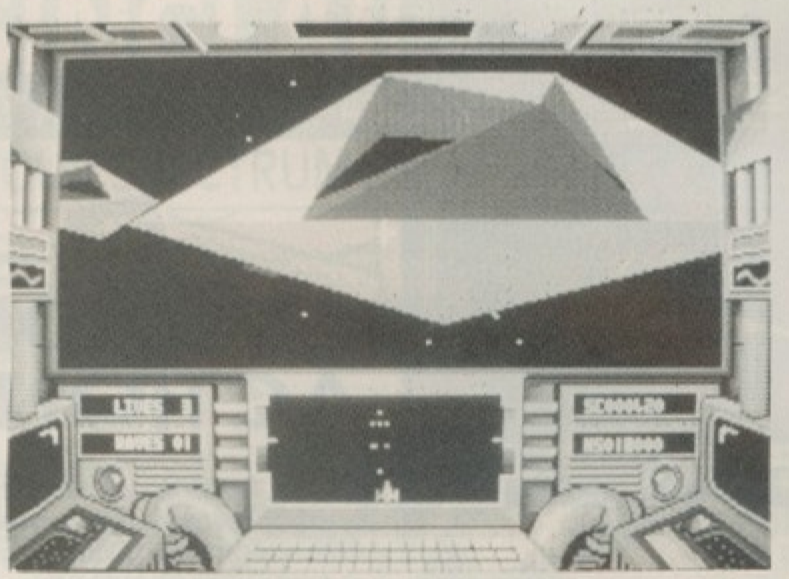
'We're grabbing games...' runs the Hewson ad, and now we know why...this full-price software house is jumping onto the budget bandwagon with Rack-It, a new range launching in September. 12 titles, including a submarine simulation, two-player chase game, and a puzzle title 'in the Boulderdash mould' will now be waiting to be grabbed by punters.

Believe it or not, that means there are now nearly **TWENTY** budget labels here in Britain. These labels need a high-turnover of games, releasing as many as fifteen or more titles simultaneously. Where does it all come from?

When it comes to C64 titles, Palace Software may have the answer. Their *Shoot 'Em Up Construction Kit*, on sale in mid-October, enables 'a person with no programming knowledge whatsoever to write the sort of games that, up to now, would have cost £10.00'. That sounds like the sort of games that, from now on, will cost £1.99.

This isn't as unlikely as it sounds. US Gold's Americana label has already brought out a title using Incentive's Graphic Adventure Creator, and Interceptor are relaunching the Automata label with no less than nine utility tiles (see separate story) proving that there's a lot a dedicated amateur can do with a good game creator.

It may come as no surprise therefore, to hear that Palace themselves are meditating on budget label possibilities. Will they be publishing games created using their Construction Kit? 'We would consider it...' replied Palace's Matthew Tims, choosing his words very carefully.



Galax: 3D and really solid.

SOLID ACTION

If you want a front-runner for the next big games trend, keep an eye on solid 3D. Filled graphics games are pretty rare things, with only three titles - *Sentinel Starfox* and *Starstrike 2* - springing readily to mind.

That's all going to change in the next few months though, with at least as many solid 3D games again expected at the PCW show. It's a surprising development, given the enormous amount of programming effort such games involve.

Take Incentive for example: they've just spent the best part of a year creating their solid 3D system *Freescape*. You'll be able to see the first Freescape game, *Driller*, at the PCW show (Stand 3052) and a pretty ambitious effort it is too.

Driller models an entire planet, buildings and all. Gas build-ups below the surface are threatening to blow the whole thing apart, so your mission is to put drilling rigs in position and vent the gas off - hence the name.

The scale of the game is certainly impressive, but so are the graphics. *Driller* is initially coming out on the 8-bit machines - Spectrum, Amstrad and C64 - making the speed and realism of the demos all the more remarkable.

Over on the 16-bit side of things where the available power is better suited to solid 3D, you'll be able to see Gremlin's new shoot-em-up *Galax* and Novagen's *Backlash* running on the ST. Rainbird are also about to enter the solid 3D stakes with *Carrier Command*, a strategic aircraft carrier simulation cum shoot-em-up, and possibly some sign of the filled graphics sequel to their amazingly successful *Starglider*.

If you're really after solid 3D perfection, not to mention some amazing flight controls, track down *Zarch* from Superior Software. Running only on Acorn's exotic 32-bit Archimedes micro, this little 256-colour marvel appears in playable demo form on the Archie welcome disk, under the name *Lander*.

If the name suggests a lunar module viewed-side on, the rolling landscapes and subtle shading here will soon show you your mistake. The realism defies belief: every particle of a *Lander/Zarch* explosion casts its own shadow and falls under gravity. An Archie will set you back upwards of £800 and you don't even get a joystick port for that money, but what a game!

The strange thing in all this is the eerie silence on the Amiga front. That blitter's ultra-fast shape-filling functions make it a natural for solid 3D, so a dedicated Amiga game would run fast and be relatively easy to write. But where is it?

Freescape; ACE logo, created using Incentive's new technique

FREESCAPE
ACE
INCENTIVE Copyright 1987

VERY IMPORTANT NEWS!

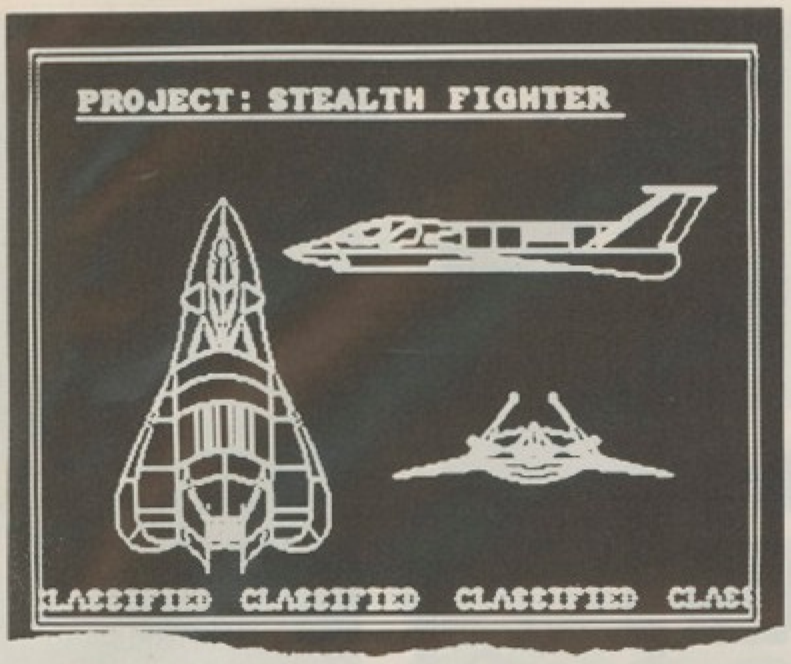
In a shock announcement that stunned the computer magazine world, a jubilant Steve Cooke, co-editor of Advanced Computer Entertainment, announced that Issue 2 of the magazine – on sale October 1st – would be giving away the first five levels of Firebird's brilliant *Bubble Bobble* coin-op conversion on a free cover cassette.

Cooke said; 'This is a great opportunity for Commodore and Spectrum owners to try before they buy. *Bubble Bobble*'s a great game and we're proud to be associated with it.' He added that owners of machines other than Spectrums or Commodores shouldn't feel left out of the freebies; they'll be getting special software discount vouchers worth more than £5.

Stop Press Price Cut

Just when we'd sent our games console article off to press, Atari announced price reductions on their XE games system. Here's what it'll cost you...

XE Console, Missile Command, 1 joystick	£79.99
XE console, keyboard, Missile Command, Flight Simulator II, Bug Hunt, 2 joysticks, light gun	£119.99
Atari data cassette recorder	£29.99
Light gun + software (yet to be decided)	£29.99
Keyboard, data cassetter recorder, 1 joystick	£59.99



STEALTH VERSUS SPEED

You've heard the rumours, you've built the plastic model, now play the game - *Project: Stealth Fighter* from MicroProse. In this new flight sim you'll be taking to the air in the F-19 'Harvey', the USAF's top secret radar-invisible fighter. There'll be none of the usual claims of accuracy or acknowledgements to the plane's manufacturers on this one : the F-19's still so secret the USAF won't even admit it exists.

Whether the KGB will learn anything from playing the computer game isn't yet clear. The game's designers say they have 'a fair idea' of the plane's capabilities - but UK-based military attaches won't have to wait too long for it. *Project: Stealth Fighter* is due out at the end of September, as is the ground combat game *Airborne Ranger*. They're both C64 titles to start with, price £14.95 cassette or £19.95 on disk.

If you think the idea of a stealth simulator is a bit far-fetched, just wait until you hear about Activision's latest C64 title. At the more reasonable price of £9.99 cassette or £14.99 disk, it's a combat simulator featuring NASA's legendary X-15 rocket plane. Called *X-15 Alpha Mission*, the game sends an intrepid astronaut (that's you) up into orbit to destroy a terrorist-held space station. If the X-15's orbital capability is a little fanciful then so, it must be said, is its 'assortment of onboard weaponry'. Be that as it may, *X-15 Alpa Mission* should be with us at the end of the month - unless, of course, it turns out to be a cruel hoax.

ARCADIA ACTION

Arcadia, Mastertronic's coin-slot operation using Amiga boards in arcade consoles, is launching at PCW with its first two titles, Boulderdash-alike *Rockford* and 2-player *Road Wars*. Both games will be converted to micro formats and released before Christmas by Melbourne House under the Arcadia name, costing #9.95 on cassette and #19.95 on disk. You should be able to see The Living Daylights as well, already produced by Domark for home micros, but converted by Arcadia for the coin-op market.

Let's face it, these games are going to have to be good. Arcadia is costing Mastertronic several million quid, so at that price a lot of 10ps will have to slip through the slots to make the venture a success. Right now the arcade titles that are really pulling in the punters are those with dedicated cabinets – *Gauntlet*, *Hang-On* and the like – and with games like *Streetfighter* (see separate story) this trend is very much on the increase. The future for the old-style of cabinet isn't as rosy as it was, even if your products are a third of the normal cost and quicker to develop, as Arcadia's will be.

"I wish them luck," said Tim Chaney of US Gold, "It's a tough market and even games that succeed aren't around for long." Let's hope Arcadia stick it out longer than most.

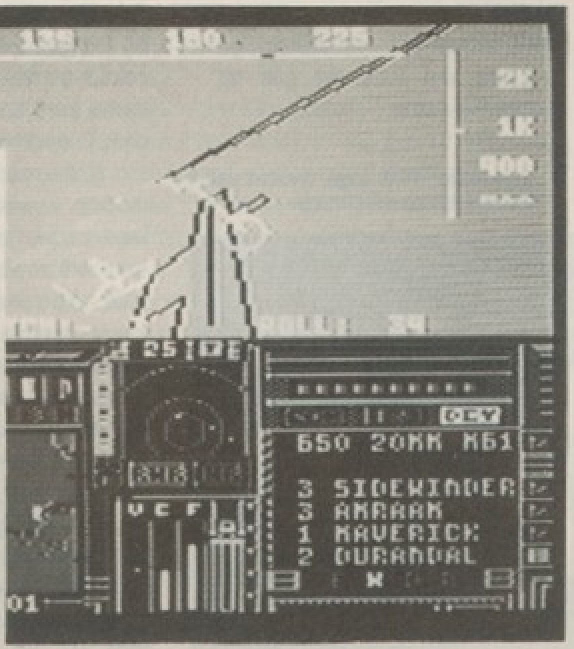
Arcadia: inside the cabinet lies an Amiga board

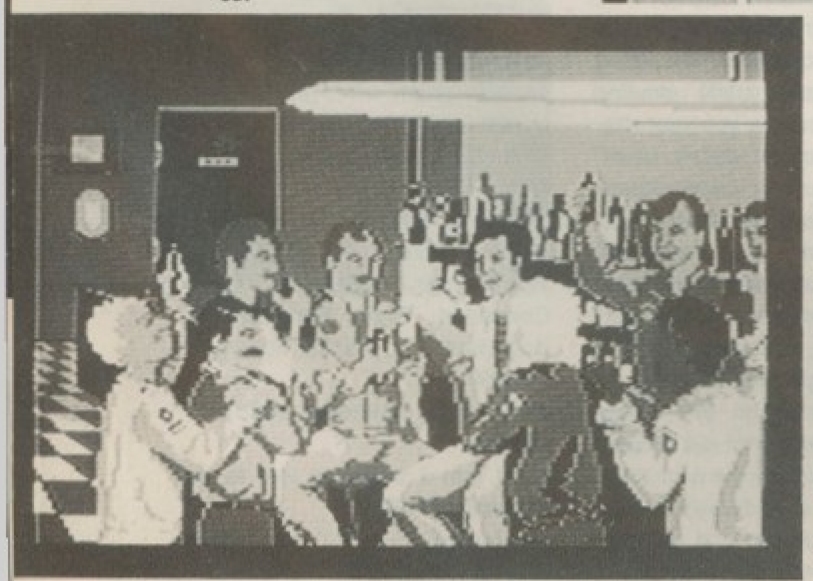
TRACK STUFF

Over on stand 1317 at PCW, Activision's sister label Electric Dreams are going racetrack crazy. They've got conversions of arcade hits *Super Hang-On* and *Firetrap*, but pride of place will go to *Super Sprint*. Based on the smash hit Atari coin-op, the game's due out at the end of the month across Spectrum, C64 and Amstrad.

Also out in the fast lane are Martech, with Nigel Mansell's Grand Prix (presumably not the one where a nut fell off his back wheel). The game won't be out till after the last World Championship race in November, but there should be some sort of preview at the show.

Stealth Fighter: looks like the secret's out





Stealth Fighter: the boys relax over a quiet drink

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Arcade Sweat-em-up!

Just when you thought it was safe to go back into the arcades, along comes a console that positively invites total destruction. CapCom are releasing a new game - *Streetfighter* - which hits the arcades in October. Forget the rest, this one sounds *really* mean.

The console features a new control system using rubber air-filled pockets. Not for this game the namby-pamby plastic button routine; in *Streetfighter* you hurl punches at the controls and the force with which you hit them determines the action on screen.

There are controls for kick and punch, and the style of attack varies according to the ferocity of the player. Electrocoin, who determine the future of a lot of consoles in this country, put the machine through four weeks of playtesting and were so impressed that they're now manufacturing the unit for Europe.

John Stergides of Electrocoin said the game was 'fantastic. It's got a massive memory and excellent sound - with lots of backgrounds. It's a mixture of *Kung-Fu-Master* and *Karate Champ*, but the control design makes you feel as if you're actually taking part."

Since CapCom are working with US Gold's new GO! label, we look forward to a possible Spectrum 48K version with interest. Just what those rubber keys were made for. Meanwhile the arcade version should be on the streets in October.

Gremlins at Work

ACE staff members so frequently ride about the country in swanky white BMWs that it's hardly news. But the latest occurrence was a little bit different; at the wheel was boss Gremlin Ian Stewart, and the purpose of the ride was a lightning tour of Gremlin's various software development teams to investigate work in progress.

There are five 'Gremlin Laboratories' around the Midlands, but the tour only had time to take in three of them - which was quite enough to see some impressive stuff.

The most original and surprising software in developement was at the starting point in Birmingham. There it is that, under the direction of project co-ordinator Ken Bulmer, 15 or so programmers are working on what could well be called *Ramrod* - a game with a startlingly original scenario and some of the snazziest graphics you've ever seen on an Amiga or Atari ST.

The object of the game is to find a CD player, but on your travels it's vital that you don't get bored. If your boredom level rises too high then the game is over. *Ramrod* features a human figure running through a surreal landscape of gigantic tubes and enormous bouncing spheres. Some of these are metal and can be forced off the playing area to sink in rivers; but if you force a glass sphere into water it will float. It's that sort of game.

Ramrod looks stunning, even at this early stage in its life; it should be really special by the time it hits the world's 16-bit screens. Only problem is, you might have to wait a bit; you could well be seeing it in the arcades first.

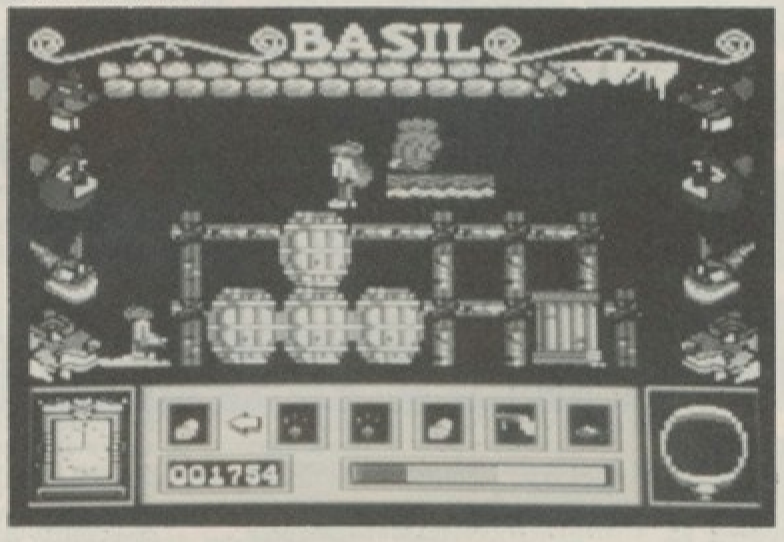
Elsewhere on the multi-user system at Birmingham *Basil The Great Mouse Detective* was well on the way to completion for the Spectrum; it's a cute 80-screen platform game, aimed at the younger game players. *Tour de Force*, also well under way on the Spectrum, is a kind of *Deathrace 2000* on two wheels - a violent cycle race round the world. There's lot to do, and it looks as though it will be very playable indeed.

Not too far away in exotic Derby another team, under the inspiring leadership of Greg 'Daddy' Holmes, should just about be wrapping up *Jack the Nipper 2*. Greg conceived Jack in the first place, and the follow-up looks as though it will be every bit as wacky and entertaining as its older brother. Elsewhere in the lab Chris Shrigley, Andy Green and Rob Toone are at the early stages of an ST shoot-em up featuring horizontal *and* vertical scrolling.

A quick burn up the M1 brings us to Sheffield, birthplace of Gremlin and still housing their largest programming team. The slightly manic atmosphere doesn't prevent them producing the goods. *Galax*, a 3D ST blaster, is more or less finished and looks as though it will be a real tough challenge. In an adjacent room musical maestro Ben Dalglish was laying down funky music for the Gremlin output.

The Gremlin operation is run very smoothly. What strikes the visitor - apart from the masses of software underway - is the relaxed and creative atmosphere. No ego-tripping programmers; just lots of talented and busy Gremlins doing what Gremlins do best.

Basil The Great Mouse Detective hunting for clues



Happy Birthday PCW

This year sees the tenth annual PCW show, an event that bodes well for games players. In what's beginning to look like the most eventful show for several years, all the major games software houses are planning ambitious stands to show off their autumn releases.

Apart from the software titles listed elsewhere in this section, items of particular interest should be the Atari 'World' and the Commodore 'Village'. We leave you to draw your own conclusions - do the titles reflect the size of the companies' bank balances? Or just their egos?

Syndromic Music are taking a stand under Atari's banner. This is hardly surprising - the ST is now regarded musically as 'the' machine to own, thanks to its built-in MIDI port. Syndromic have rapidly become a very big noise in the computer music field - expect to hear it at the show.

In addition, Atari are promising a CD-player as well as the latest additions to the Mega ST ranges together with products from over 30 supporting companies.

Down in the 'village' you can check out the Amiga and related applications - including Desktop Video from Triangle TV. Psygnosis' *Terrapods* for the Amiga will also be on show, but Amiga owners will have to go over to the Atari section to see it alongside its ST counterpart. Oh, the humiliation...There are rumours of another Psygnosis product to be demo'd on the stand - *Barbarian 2*? Keep your eyes peeled.

Probably the best thing about this year's show, however, is the space - up 30% on last year. That means you should be able to see the games and avoid dying of heat-stroke or being trampled to death as the herds kick, punch, cough, and elbow their way round the halls. If things do get tight, perhaps PCW could pick up a few lessons from the Chelsea Flower Show - which has a one way system, ensuring that (a) you pass all the stands and (b) you avoid physical discomfort. We're not pansies, but we do like a bit of space to spread ourselves in if possible.

The PCW Show runs at Olympia from 23rd to 27th September. The first two days are for trade visitors only. Tickets £3.00 available from Keith Prowse, POB 2, LONDON, W6 0LQ.Tel 01-741 9999 for credit card bookings.

ACE LETTERS

Your chance to lets us – and the rest of the world – know what you think

Strange things have been happening down here at ACE headquarters. Even though this is our very first issue, the postman's been bringing us sacks of letters for the past few weeks. We were so delighted we didn't bother to read *all* the addresses on the envelopes; we just ripped them open and read them. And once we'd read them, we thought we might as well go ahead and print a few of them.

PROUD OWNER

As the proud owner of a Sinclair Z88 I am writing to ask why you are not covering the machine in your Screen Test reviews section.

There are many enthusiastic Z88 owners around the country and many more just waiting for that sexy beast to pop through their letter box. (Any day now).I am sure they would be avid readers of your magazine – if only you reviewed the large amount of software available and gave more coverage to their machine.

C. Sinclair
Cambridge

As far as we're aware, Mr. Sinclair, there aren't yet any games available for this machine. Of course, if it takes off in the field of computer entertainment we'll be reviewing games and other programs. We look forward to a version of Wizball.

OLD TIMER

Just a word to congratulate you on your launch. What a breath of fresh air it was to hear of an intelligent and elegant computer entertainment magazine. How refreshing to find that even we adults are not neglected ! At the ripe old age of 978 I still find time to put in a few hours of joystick waggling on a game of *Gauntlet*, and I think I could hold my own with any of the young whippersnappers who hang round the arcades in these parts. Please don't neglect the old-timers.

Methuselah
Zion

More power to your elbow, squire. It's letters like yours that make the blood, sweat and tears that go in to producing ACE worthwhile.

BRILL! etc.

Wow! Your mag is brill, bad, wicked, mega-groovy. The reviews are brill and the design is wicked.

A. Mole, London

A CURIOUS BUG

Has anyone else noticed the curious bug that occurs when loading the C Compiler in the run-time module when you're in DOS (version 3.1, that is) in Line 6579 of the Public Domain utility *Glitch* ?

A. Bore
Dorking

No.

CAN YOU HELP?

I recently purchased a Toughguy Super Macho joystick but I'm having trouble getting it to work with my Spectrum. Can you help?

Possibly. The problem seems to be that your computer is not what experts call 'compatible' with this joystick. Basically, you need to buy either a new and more macho computer – the Super Toughguy works only with 520K RAM and above – or buy a new joystick.

PET GERBIL

Hey! Why do you let that loud-mouthed so-called gossip columnist sound off in your pages every month? He talks a load of rubbish and he hasn't got nothing worth saying and he makes me want to heave the contents of my stomach over my computer. My pet gerbil could do better than what he does.

H. Metal
Sheffield

There must be some mistake here. ACE does not have a gossip columnist – not even a 'so-called' one. Kindly take your letter elsewhere.

IS HE ALONE?

Am I alone in noticing a marked increase in the number of advertisements in computer magazines prominently displaying sensitive parts of the female anatomy. Are the companies placing these advertisements aware that teenage boys may be seeing them and that they are, to say the least, inflammatory? How can you possibly justify printing such blatantly lewd pictures?

I for one am cancelling my subscription forthwith.

John Smith
Newcastle

Of course we've noticed. Do you think we're blind? Incidentally, you win the prize for the first cancelled subscription; a no-expenses-paid night out for two in the Beau Nash Strip Club, Bath.

UNCANNY COINCIDENCE

There's so much budget software around these days that I don't know what to buy. Could you please run an article on which are the best cheapo games?

Adam Wardman
Harlow

It's an uncanny coincidence that you should ask, Adam. There's an article on that very subject in Issue 2.

UNCANNY COINCIDENCE 2

There are so many joysticks around that I don't know which one to buy. Could you please run an article on which are the best ones?

Adam Wardman
Harlow

It's an uncanny coincidence that you should ask, Adam. There's an article on that very subject in Issue 2.

OK. It's a fair cop. A spoof can go far enough. We plead guilty to fabricating the entire contents of this page, falsifying names and addresses and making up all these 'letters'.

So for Pete's sake send us some *genuine* ones. We want to hear your opinions on anything in ACE or the world of computer entertainment; other ACE readers want to hear your opinions too. Sorrow, anger, joy, indifference – no matter what the sentiment, we want to hear it. Here. Soon. When you've written your letter send it to:

ACE Letters, 4 Queen Street, Bath BA1 1EJ

ACE READER SURVEY

We're after your vital statistics...Fill in the form below, tell us more about yourself and get the chance to run off with one of five mystery prizes.

All completed forms received before 14th October will be entered into a draw and five lucky respondents taken from the hat...If you're one of them you'll receive a new release for your machine, specially selected by the ACE reviewing team, by return of post. Go to it!

YOUR DETAILS

Your name:

Your address:

Postcode:

Your age

☐ Under 12 ☐ 12 – 16 ☐ 17 – 20 ☐ 21 – 25

☐ 26 – 35 ☐ 36 – 45 ☐ 46 – 65 ☐ Over 65

YOUR SYSTEM DETAILS

Please tick the boxes where appropriate.

Do you own, or are you planning to buy, any of the following equipment?

	OWN	PLANNING TO BUY
COMMODORE 64/128	☐	☐
SPECTRUM	☐	☐
AMSTRAD	☐	☐
ATARI 8-BIT	☐	☐
ATARI ST	☐	☐
COMMODORE AMIGA	☐	☐
IBM-COMPATIBLE PC	☐	☐
APPLE MACINTOSH	☐	☐
MODEM	☐	☐
VIDEO CAMERA	☐	☐
KEYBOARD/SYNTHESISER	☐	☐
MIDI INTERFACE	☐	☐
OTHER (please specify):	☐	☐

If you own a modem, do you subscribe to any of the following services?

☐ PRESTEL ☐ MICRONET ☐ BT GOLD

SOFTWARE

How much do you spend monthly on software (on average)?

☐ Under £10 ☐ £10-£20 ☐ £20-£50 ☐ £50-£100 ☐ £100+

How do you buy your software?

☐ ON TAPE ☐ ON DISK ☐ MIXTURE OF BOTH

When buying games, which do you usually get?

☐ BUDGET (less than £5.00) ☐ FULL-PRICE (more than £7.00) ☐ MIXTURE

Which categories of software most appeal to you? Mark each category on a scale of 10 (most interested) to 1 (least interested)

☐ ARCADE ☐ ADVENTURE ☐ PLAY-BY-MAIL

☐ MULTI-USER (ON-LINE) GAMES ☐ STRATEGY

THE MAGAZINE

Please rate your interest in the following sections of ACE on a scale of 10 (most interested) down to 1 (least interested):

☐ NEWS ☐ LETTERS ☐ GAMES CONSOLES

☐ ARCADES ☐ COMPETITION

☐ GRAPHICS SECTION ☐ MUSIC SECTION

☐ SCREEN TEST ☐ BUYERS GUIDE

☐ ADVENTURES ☐ TRICKS 'N' TACTICS

☐ SPECIAL OFFERS

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For the ATARI ST

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Space Shuttle Simulation

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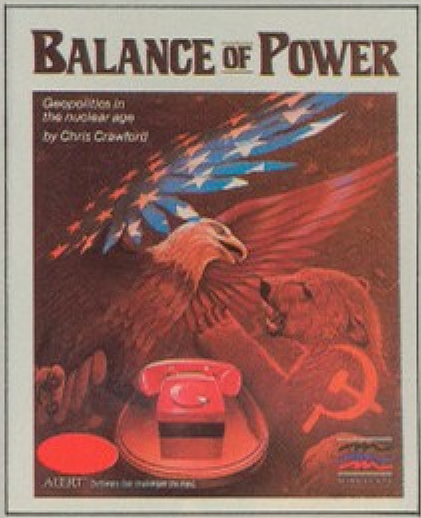
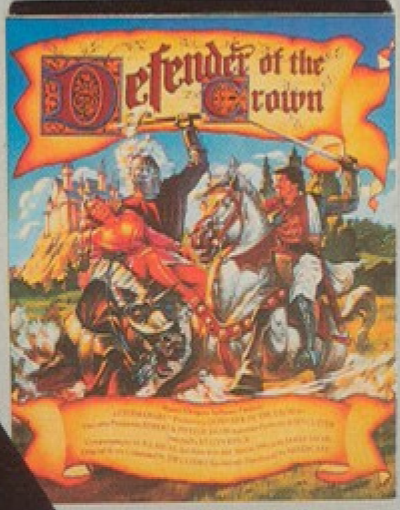

BALANCE OF POWER
Geopolitics in the nuclear age
by Chris Crawford

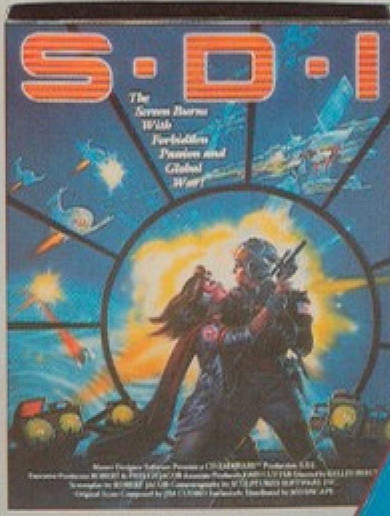
2

MIRRORSOFT
STRIKE FORCE HARRIER
Can you meet the ultimate challenge?

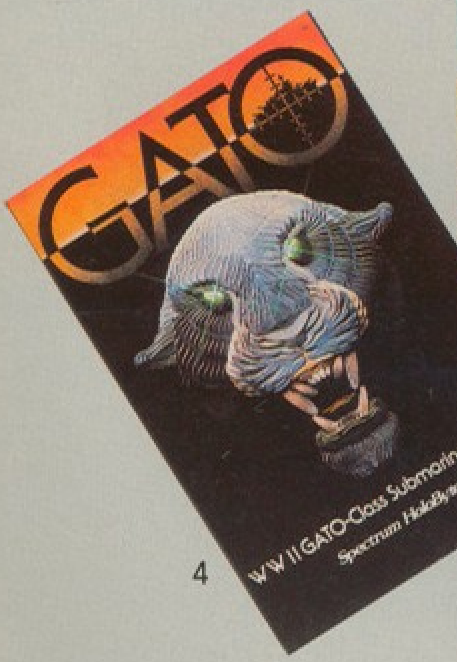
3

5


Defender of the Crown


S·D·I
The Screen Burns With Forbidden Passion and Global War!

7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WW II GATO-Class Submarine Simulation
Spectrum HoloByte Inc.

4

Spitfire 40
THE BEST THING SINCE THE REAL THING
MIRRORSOFT

8

6

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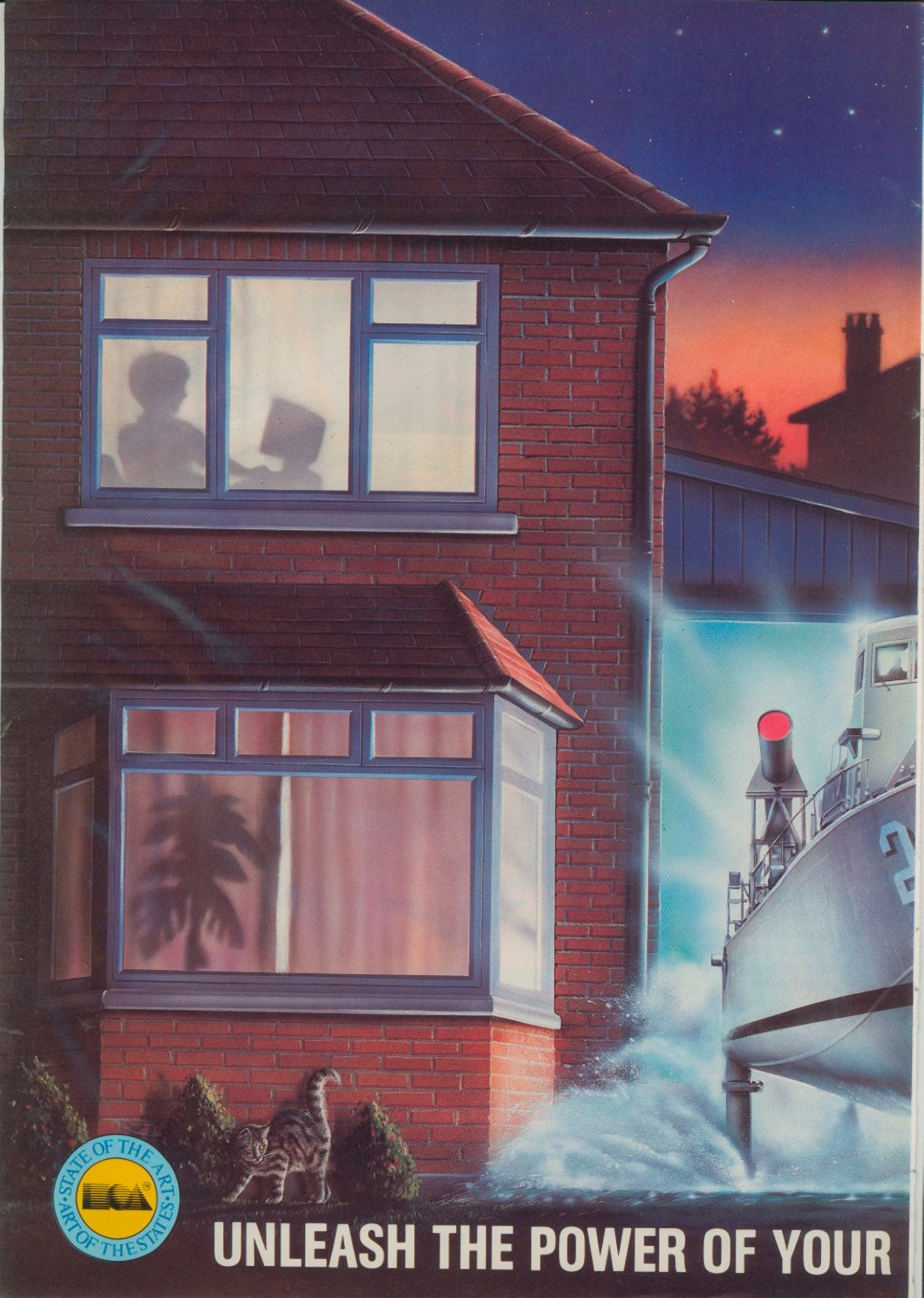
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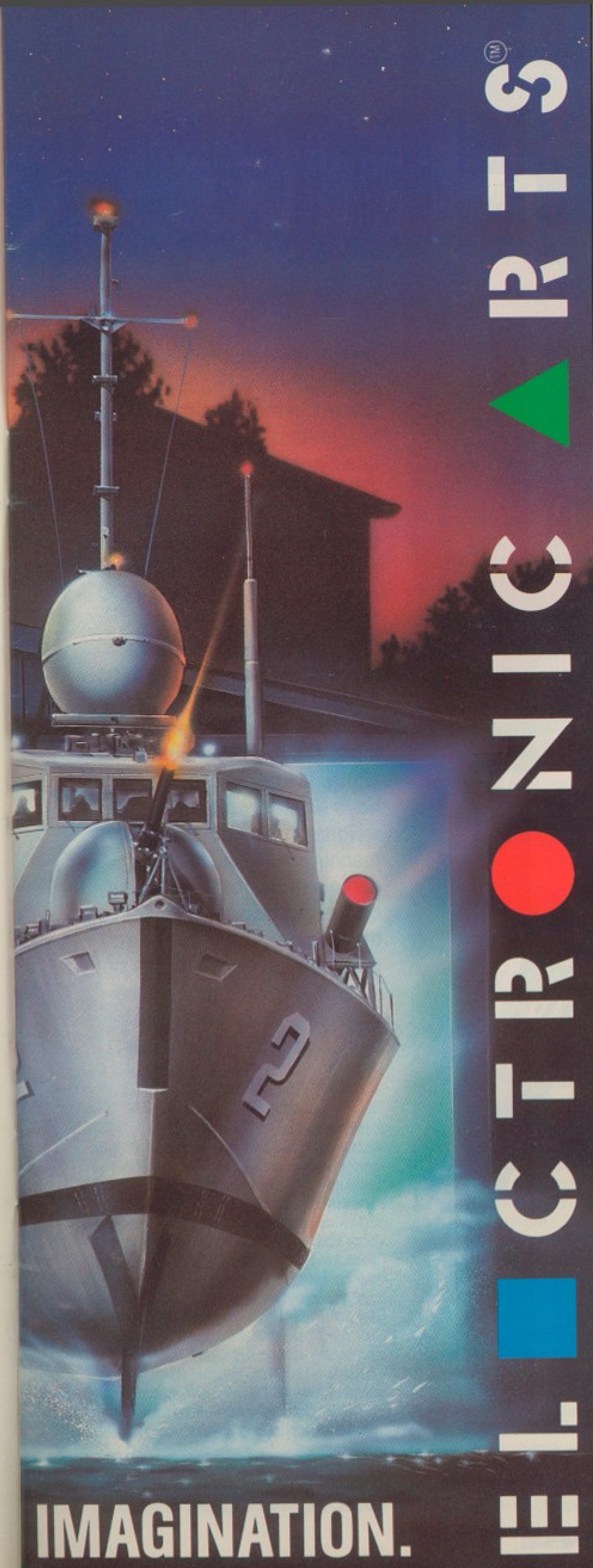
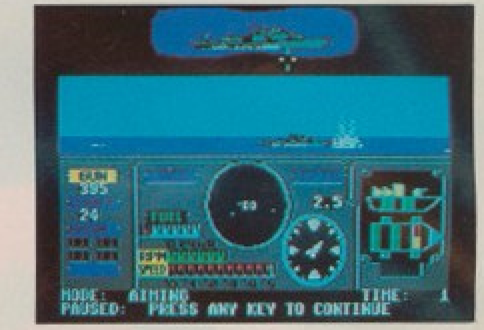


It's 7.00 in the evening. You've just finished another meal. You should do your homework but something is calling you from the garage. Something that would terrify the neighbours. Something agile, fast and deadly. **Pegasus**-the Patrol Hydrofoil Missilecraft. The temptation is just too much.



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GUN
395
24
FUEL
RPM
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2.5
MODE:   AIMING                    TIME:   1
PAUSED:  PRESS ANY KEY TO CONTINUE
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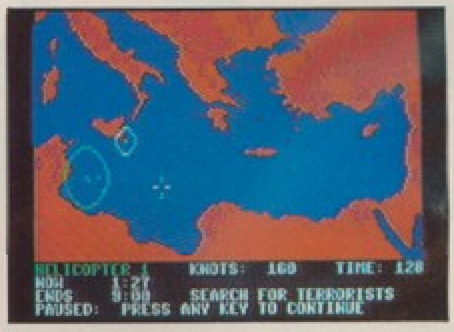

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HELICOPTER 1        KNOTS:  160     TIME: 128
NOW        1:27
ENDS       9:00     SEARCH FOR TERRORISTS
PAUSED:   PRESS ANY KEY TO CONTINUE
```

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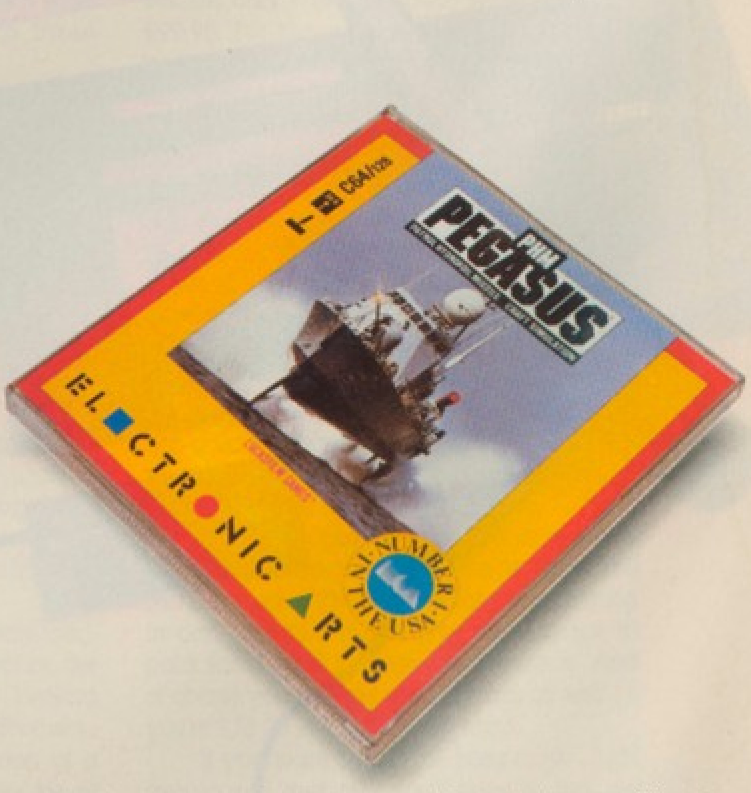

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Electronic Arts software is available on a wide range of home computers including: Commodore C64, Commodore Amiga, Atari ST, IBM, Spectrum and Amstrad.

Electronic Arts. 11-49 Station Rd. Langley. Slough. Berkshire. SL3 8YN England.

WHICH CON

Clockwise, from the top: Atari XE, Nintendo Entertainment System, Sega Master System.

An arcade machine you don't have to feed with 10p pieces...a machine that gives you instant loading of games like *Space Harrier* and *Hang On*....a machine whose graphics capabilities make most home computers look positively prehistoric. A games console can be all of these.

But which one - if any - should you go for? Atari are in the struggle with their 2600 system and the XE consoles; Nintendo are now being marketed in the UK by toy giants Mattel; and budget big boys Mastertronic have weighed in with the Sega machine. Will the consoles carve a niche for themselves on the games scene, or are they just another flickering sprite on the Great Screen of Life? A.C.E. investigates the console phenomenon and comes up with the answers...

Software

What's always been true of micros is even more true of consoles - software support and the quality of the games released are the only buying criteria worth considering. You can check out reviews of the hardware until you're blue in the face, but unless the games themselves are hot you might as well save your pennies. So will the consoles deliver? If they do, can you afford to pay for what's on offer? Will you want to?

The Nintendo machine has a larger selection of software globally available - in excess of 60 titles - than its Japanese competitor Sega. Furthermore, this software comes from a variety of manufacturers other than Nintendo, though the company still vets and labels software before release.

Neither of the Japanese invaders, however, comes close to matching the volume of software available for Atari's XE

NSOLE?

NINTENDO V ATARI V SEGA

console-computer hybrid or for the 2600 console; there are thousands of titles available on 8-bit Atari format. Not only are many of them excellent games, they can also be snapped up at prices sometimes as much as 50% less than Sega or Nintendo prices. Atari games, though, are getting a little aged and there's not likely to be much interest on the part of software houses in developing new stuff.

As for the Sega system, this - for the time being at any rate - is simply a way of getting a unit to play Sega games on (some of which, of course, are pretty hot). Other manufacturers will possibly get a look in at some later date, but there are currently no firm plans for this to happen before next year.

You shouldn't be misled by figures regarding the total number of games available for a system, however. How may of them will you actually be able to buy? Unfortunately Mattel, who are introducing Nintendo in this country, are only planning to introduce 27 of those 60+ titles in this country in 1987. Sega are bringing in only 20 of the system's 40 titles. No problems on this score for Atari, though; there's lots of software waiting to be bought.

Both Sega and Nintendo will review this policy after Christmas, but with software costing between £15 and £35 you may think that the question of numbers of titles is largely academic. Sega's games have the advantage of being cheaper than Nintendo's by at least five pounds. Both companies are planning to divide the games they release into different categories - Sega's will retail at £14.95, £19.95, and £24.95, Nintendo's at £19.50,£28.50, and £31.50. The cheaper Nintendo range are the 'sports and action titles', the games compatible with the Zapper gun will fall into the middle category, and the R.O.B. and other accessory-driven games will tip the top-end of the scales. Sega's games are priced according to format - one megabyte cartridges are cheapest, then 2-megs, and the credit-card style 'softcards' are the most expensive.

Atari software is much cheaper. A full-price cassette costs around £10, but there are numerous budget titles around which are well worth considering. The 2600 system is , of course, cartridge-only; these typically cost either £9.99 or £12.99, though many shops are doing bargain prices. There's a pretty big list of 2600 titles, but most of them are none too recent; the past couple of years has probably seen only a dozen or so new releases.

The actual quality of what's on offer is, of course, just as important as the pricing and the variety of choice. You can check out the reviews of the software for these machines on the following pages and make your own decisions, but most of us at A.C.E. reached the same conclusion - that the software on the Nintendo looked slicker, and that the system possibly had the greater potential, but that the games for Sega were actually more playable, while the Atari systems' huge software base was attractive despite the longevity of many titles.

Control

Of almost equal importance to software for the discerning games player is the question of what you use to play the games. Nintendo are investigating the possibility of providing alternative joystick units as well as the 'hand controllers' that come with the system. These little units - with their tiny knobs, pressure pads and buttons - are broadly similar on the Sega and Nintendo machines and feelings about them differ widely according to personal taste.

However, an alternative would be a life-saver for those of us who can't handle anything other than a good, solid stick. Sega have no plans to provide alternatives, but the action of third-party suppliers may make both companies' plans irrelevant; if the market takes off, expect copious supplies of add-on joysticks. Atari, of course, supply their traditional joysticks - and you can use a wide variety of alternative sticks with these machines.

NINTENDO

The Nintendo is available as two different packages. The complete system will cost you £159.99 and comes with a plastic robotic figure (ROB) and a light gun. You also get two free games - *Gyromite* and *Duck Hunt* - which make use of ROB and the Zapper (as Nintendo call the gun).

Despite the plastic construction, the quality of manufacture of these units is excellent. Most kids, of whatever age, will get a kick out of unpacking the system and setting it up, even if the main control box does look a bit...well...boxy.

For £99.99 you can get the slimmed-down system, which misses out the robot, the Zapper, and the two games and instead gives you a copy of *Super Mario Brothers.*. For some games freaks, the inclusion of a freebie *Mario* game will probably be of considerable appeal - it's certainly an astonishingly addictive romp.

Once you've plugged the unit into the mains (plug supplied), connected up your TV, and selected your game, you slot it into the box where it snuggles down and makes perfect contact - no pushing or shoving required. The game loads instantly and you're away.

The 'game controllers', or joystick units feature four buttons - one labelled START, another SELECT, and two fire buttons. These are used for various different purposes according to what game you're playing. Unlike the Sega units, you can't screw a mini-joystick lever onto them.

The Zapper gun is very well made and easy to use. In practice it seems accurate and reasonably tolerant of your distance from the screen, though obviously the further away you stand the harder it is to hit your target.

ROB - the robot - is likely to be a waste of money for most games-players. True, there are games that use it - but they cost a lot more (£31.50) and although they will doubtless appeal to younger souls, older gamesters are unlikely to be impressed. The prospect of watching ROB dither about spinning gyros and performing other antics is unlikely to appeal to someone whose first response to a robot is to send it into eternity with a mega-bolt from their pocket neutron blaster.

ROB struts his stuff.

SEGA

The Sega, unlike the Nintendo, comes in one version only - the complete system, costing £99.95. For this you get the basic unit, two 'control pads' and the TV lead (with aerial/console switch included). You also get a free copy of *Hang-On* - an excellent version of the arcade motorcycling classic.

The styling of the machine is significantly better than the Nintendo and the quality of construction only marginally inferior - certainly not to the point of demanding adverse comment. One particular point about the control pads is that you are supplied with little knobs which you can screw into the pads, making them more like a conventional joystick. Since most of us found them pretty useless with or without knobs this point is largely academic.

The cartridges for the Sega system are more standard in appearance than the Nintendo ones. They are notable for coming in one and two megabyte sizes, space to pack some quite impressive software in. And of course you can get the softcards as well., if you're £35.00 in credit at the bank.

If you want to get the Lasgun (er...light gun to you and me) you'll have to fork out another £44.95, but you get a couple of games with it (on what's called a Combo Cartridge - two games on one cartridge).

You can also get some very hi-tech 3-D specs for £49.95. Whether you think it's worth £50 to get 3D games must depend on the games themselves. You never know what the future has in store, but judging by the one we were sent for review we feel that Mastertronic are unlikely to be burdened by our 50 quid for some time yet.

ATARI

Atari are revamping a couple of their older models for an onslaught on the console market. First there's the XE system, which for £119.99 gets you the XE main unit plus keyboard expansion and data recorder, thereby effectively giving you a 130XE 8-bit computer, but with only half the memory. You also get the CX40 joystick and a software cartridge thrown in.

Alternatively, there's still the 2600 games console. This will set you back £49.95, bringing you the console unit, joystick, and games cartridge.

In both cases there was still some uncertainty at Atari as to which software titles would be bundled with the machine. However, software is one thing these units have in abundance. There are, in theory, over 2000 titles for the XE system, with approximately 80-90 readily available on ROM cartridge, cassette, or disc. Prices for cartridges vary enormously but some of the older titles can be picked up for less than a tenner.

Age is the real concern here, however. The 2600 system first saw the light of day in 1979 and although it was ahead of its time in those days it certainly wasn't eight years ahead. However Atari claim sales of 1 million units to date and for that reason some software houses are still supporting both the 2600 and the XE system - Activision (and Atari, of course) being the prime examples. Some dedicated gamesters may also appreciate the possibility of being able to play some of the older epoch-making titles that made Atari famous and fuelled the early days of computer games - *Star Raiders*, for example, or *Pac-Man*.

In the final analysis however, any money spent on these units is money spent on history. True, at £49.95 the 2600 is incredibly cheap and despite its age the software still packs an addictive punch. So as history goes, it's pretty entertaining - but do you really want to spend today's cash on yesterday's system.

* * *

DUCK-HUNT - Nintendo

Quack, quack - you're dead. Played with the 'zapper' this cartridge gives you the opportunity to shoot one duck, two ducks, or clay pigeons. The zapper itself is accurate enough even at distances of five metres from the screen and has a pleasant balance and weight; it actually *feels* like a pistol. The game has pretty graphics and reasonable animation, as well as one or two nice touches; when you bag the birdie your faithful hound jumps up with it in his mouth - when you miss it gives a sly guffaw. But that's about it. Both duck and clay pigeon shooting are far too easy to keep you at it for long; when you're a crack shot you need something a bit more challenging.

SAFARI-HUNT - Sega

Sega's software for use with the pistol includes three games; *Safari Hunt, Marksman* and *Trap Shooting. Safari Hunt*, as the name implies, involves shooting various animals that bound or flap around the on-screen jungle. The scenery and the animals change for each round though the graphics are generally simplistic with a rather blocky aspect to them.

Marksman takes place on an indoor range of the type favoured by Clint Eastwood when in practice with his Magnum 44. Silhouettes of baddies pop up or trundle across the screen; waste the requisite number and you can go on to the next stage. The perspective and shading of the game are good, the sound is suitably atmospheric and the game proves to be quite a test of your marksmanship.

Trapshooting, as the Americans call clay-pigeon shooting, boasts wonderful explosions when you score a hit. This is a good shooting cartridge, let down somewhat by the far too simplistic *Safari Hunt*. Still, Sega's pistol-packing game gets nearer the bull's-eye than the Nintendo offering.

SUPER MARIO BROTHERS - Nintendo

Now this is a game worth playing; in fact, it's almost worth buying the console just for this one game. Can 4,000,000 Japanese buyers be wrong? In this case, no.

Playing the game involves controlling a little man - Mario - on his quest for the Mushroom Princess, kidnapped by the denizens of the Turtle Kingdom. It's a silly scenario, very Japanese and cutesy, but don't let it put you off.

The game area is made up of several 'worlds', each comprising four separate levels. Mario runs and jumps from left to right, catching various objects and destroying walls with his hard-hatted head. Catch a Magic Mushroom and you become twice as big and twice as powerful; get a Fire Flower and you are transformed into Super Mario, lobbing bolts of fire at the nasties; grab hold of a star and you are, temporarily, Invincible Mario.

The game is incredibly addictive, with a huge playing area, hosts of wacky enemies, and a plethora of puzzles which will only be solved by lots of practice and large helpings of luck. The graphics are bright and very cute, and the musical accompaniment must be one of the catchiest computer tunes ever written - it certainly fits the crazy action perfectly. *Super Mario* is by far the best game available for the Nintendo system, and more than holds its own with games we've seen on any home micro in the last few years.

GYROMITE - Nintendo

Your chance for meaningful man-machine interaction as you plug in ROB - your Robotic Operating Buddy. You sit ROB in front of the screen, connected to the console via the second control pad. ROB activates the buttons of the control pad by placing spinning gyroscopes onto a red or blue 'cup'; the weight of the gyro' then depresses the cup which in turn activates the button on the control pad. Depending upon which cup the gyro's in, a series of columns of corresponding colour is raised/lowered on the screen enabling a little character, (the proff) to wander across the screen and reach his goal.

ROB's an interesting little add-on to the system, but it remains to be seen what - if any - software will be produced to take advantage of it. *Gyromite* itself is a very simplistic game which has little to recommend it except that it shows how ROB can work.

HANG ON - Sega

This motor-bike game was - rightly - a big hit in the arcades, largely because of the faithfulness of the simulation. Sega have pulled this off rather well; the game is exciting and demanding. Graphics are very similar to the arcade original, with only two very minor points letting it down; firstly, the trackside obstacles, as they move closer, grow larger in a somewhat jerky fashion, and secondly that when you crash you miss out on all the fun of seeing your hapless rider flung through the air - on this version the bike just explodes into a ball of flame. But these are minor points; the game is as smooth and responsive as ever and though sound is not quite up to the arcade standard it is still difficult to fault.

SPACE HARRIER - Sega

A very disappointing version of Sega's arcade smasher. Though the game is very big, bright and colourful it lacks the smooth 3D movement that made the arcade game so playable.

Jerky graphics are not the game's only drawback; all the enemy creatures and objects are displayed in square character blocks and if two of these overlap then part of the most distant character can be erased by some a blank one.

Space Harrier's sound contains little to redeem the graphics, with the tune being played very weakly throughout and a voice that sounds like a cross between Micky Mouse and Donald Duck blurting out the usual 'Get Ready' as each wave of enemies starts to hurtle toward you.

ATARI XE GAMES

ROBOTRON 2084 - cartridge

A conversion of the old arcade zap-em-up in which your task was to rescue the last surviving humans from the clutches of hordes of killer robots. You are placed in the middle of a screen crowded with robots that all begin to converge on you as you desperately attempt to blast a path through their metal bodies. Also wandering around the screen are a number of humans which it is your duty to rescue. A very good conversion of a frantic game - but it is getting a little long in the robotic tooth.

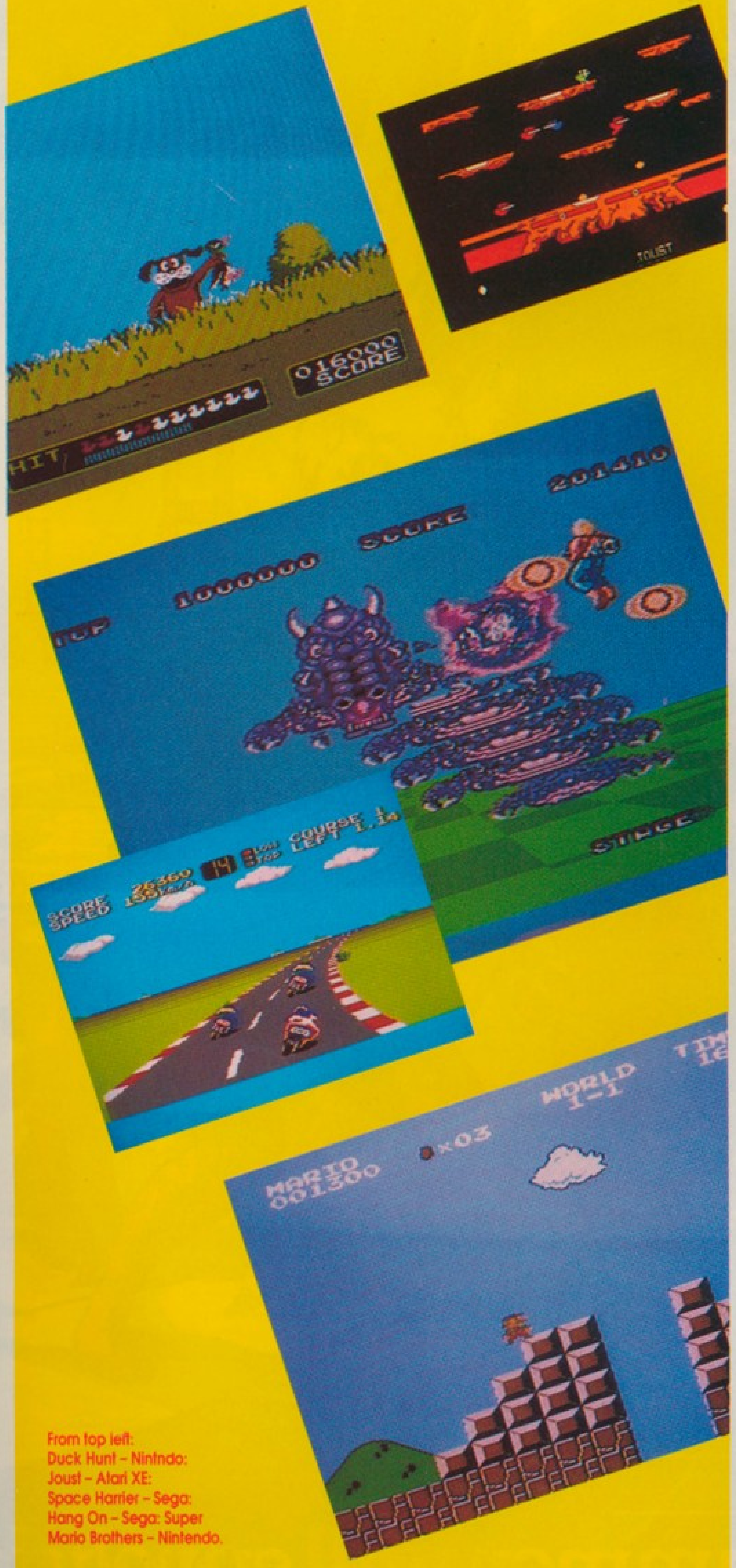
JOUST

Another arcade conversion, this is the game of knightly conflict with the combatants perched atop giant birds. The object is to unseat your opponents and grab the egg that falls from the now riderless bird. Graphics are pretty simplistic when compared with the arcade version and this itself is a rather ancient game (from way back in '83) but all of the playability has been retained, including the option for two people to play simultaneously.

STAR RAIDERS

Yes, its the first and all time great space zap-em-up in which you defend the Atarian Empire from the marauding Zylons. You are equipped with a Galactic map showing your location and the number of enemy ships in each sector, a short range scan that shows your position and that of any other craft within a sector and the essential battle computer, shields and photon torpedoes.

The object of the game is simple - warp around the map and destroy all of the enemy ships before they destroy either you or your



From top left:
Duck Hunt – Nintndo:
Joust – Atari XE:
Space Harrier – Sega:
Hang On – Sega: Super
Mario Brothers – Nintendo.

Starbases. A 3D view is given of the small but fast attacking ships as they fly by blasting your defences to pieces; if you survive the fight you can warp off to a starbase for repairs. *Star Raiders* is a fast and compulsive challenge but, unfortunately, it can't be played without the add-on keyboard.

* * *

CONCLUSIONS

With the Atari machines you at least know where you stand. The 2600 is cheap and uses cartridge software that's been around for a while and is readily available. The XE system is essentially an 8-bit computer with a vast amount of games to choose from. Neither , though, seems to have much of a future in terms of software development; unless they sell extraordinarily well software houses will see little point in devoting R&D resorces to them.

Sadly, because of the restricted availability of titles for both Japanese machines, it's very difficult to make a definitive judgement about each unit's potential. A.C.E.'s Steve Cooke was in Tokyo last summer and saw Nintendo software that knocked spots off anything we've seen for the machine over here. But the message is - if it's not on the shelves in the UK then it might as well be in Never-Never Land. And don't go relying on Japanese imports - the Mattel unit uses a different cartridge format from the Japanese Nintendo system.

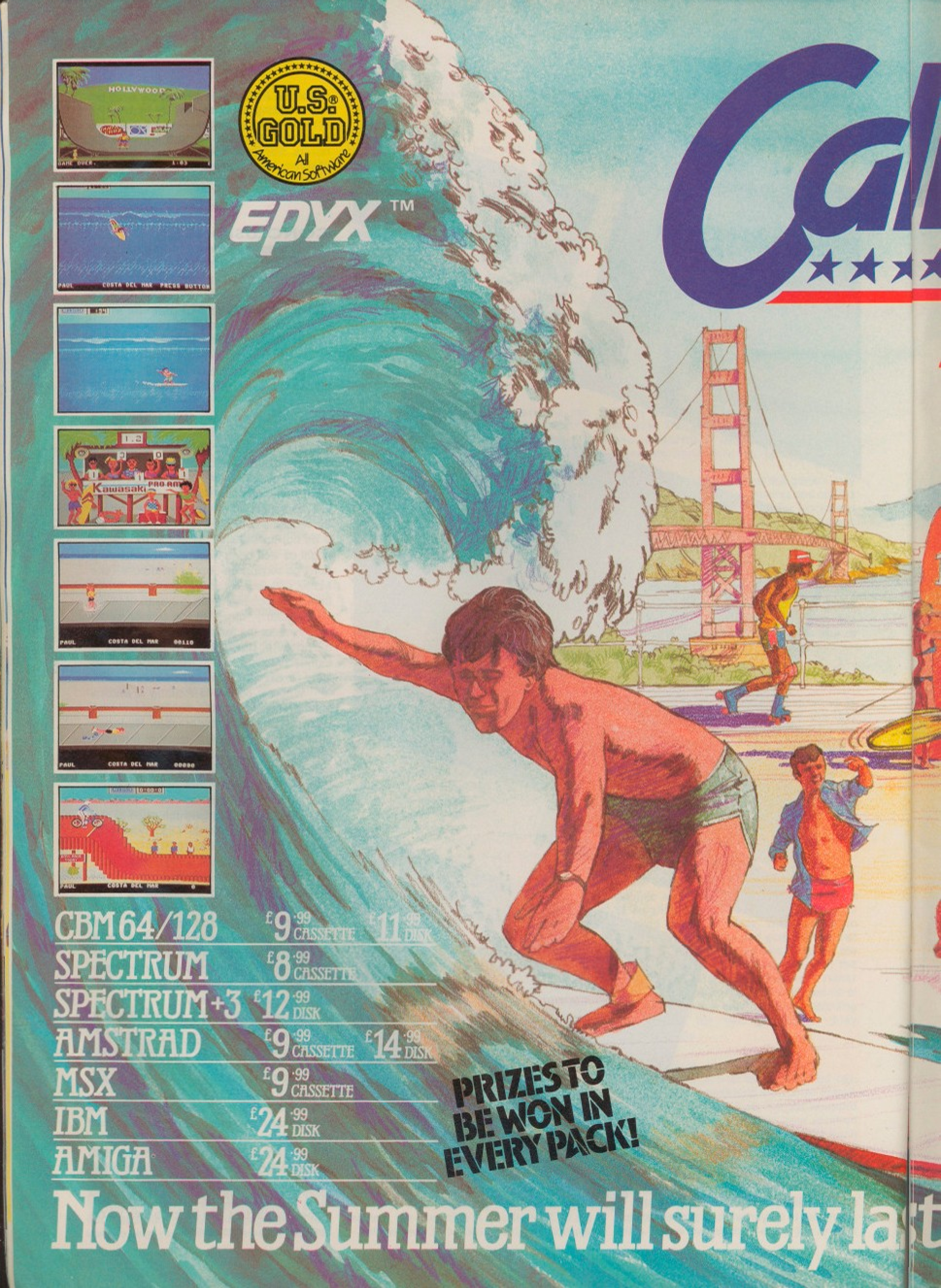
Similarly, many of the games we've seen here for the Sega have been written in a character-based fashion that gives a slightly primitive look to the display and at worst causes ugly masking problems.

When it comes to making a choice between the two systems, the Japanese don't seem to have had any trouble. Nintendo claim 95% of the games console market - perhaps an over-stated figure, but the fact is that Sega sales have been nowhere near the level of Nintendo's. Over here, however, things don't seem to be so clear cut. Now that Mattel have dropped the price of the Nintendo unit to equal the Sega system, it's even harder to pick a winner.

We reckon that if you're after slick programming and expansion possibilities Nintendo has the greater potential;. if you're keener on gameplay than cute displays, Sega - for the time being, at any rate - has the edge. Remember, however, that there are always exceptions - Nintendo's *Super Mario* is a super-addictive and very playable game, and Sega's *Transbot* has some great-looking screens.

But should you buy a console rather than, say, a 16-bit computer like the ST or the Amiga? While an ST costs £200 more than a console, it's a much more versatile machine, both in terms of what you can do with it and the kind of games you can play on it.

Ideally, we'd all have enough cash to own a computer and a console. Given that most of us haven't a choice has to be made. If you like the look of console software and are interested exclusively in games then the machines are worth taking a good, long look at; if you want something that will play games *and* do that little bit more then you're better off with a computer. ●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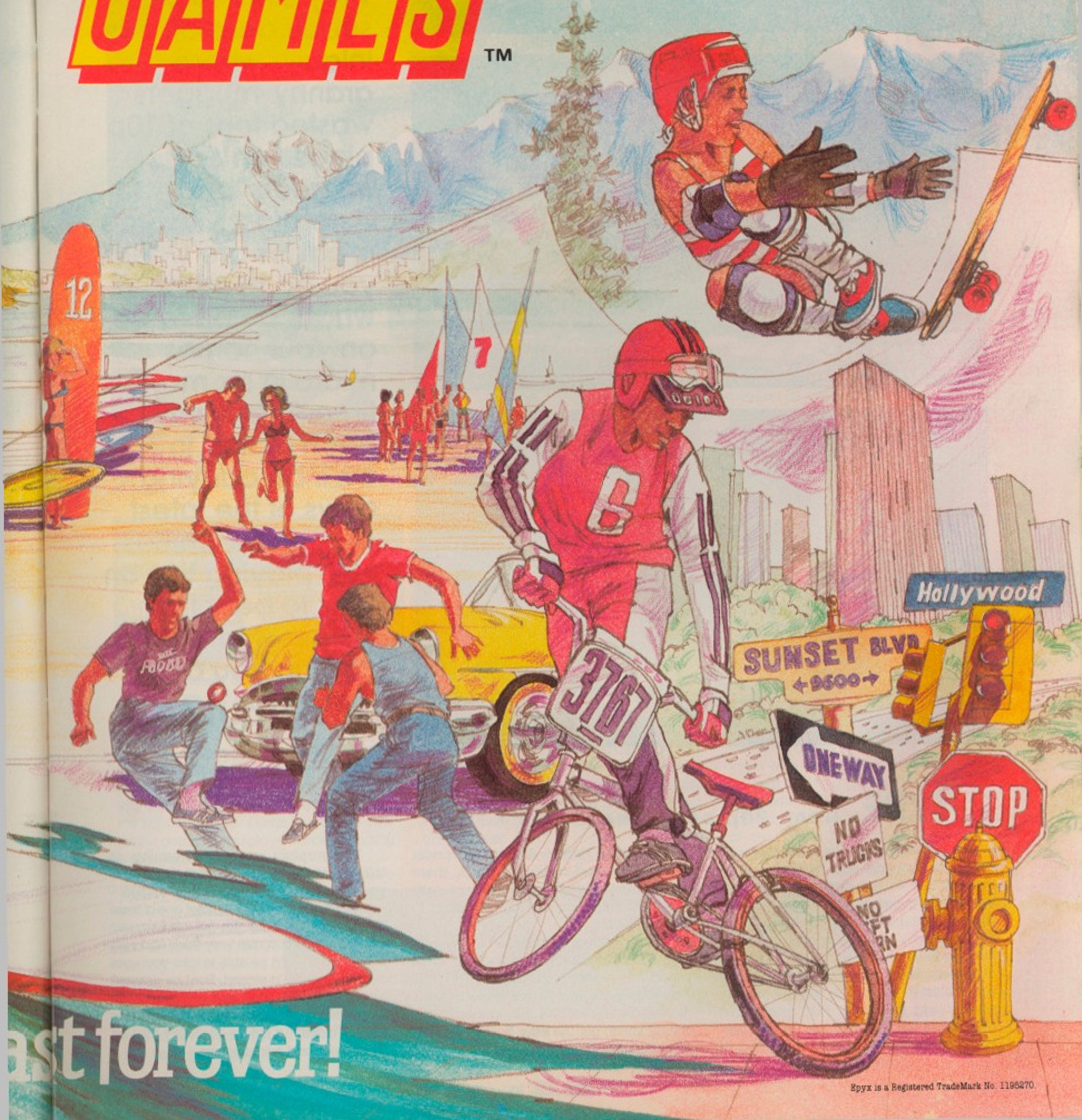

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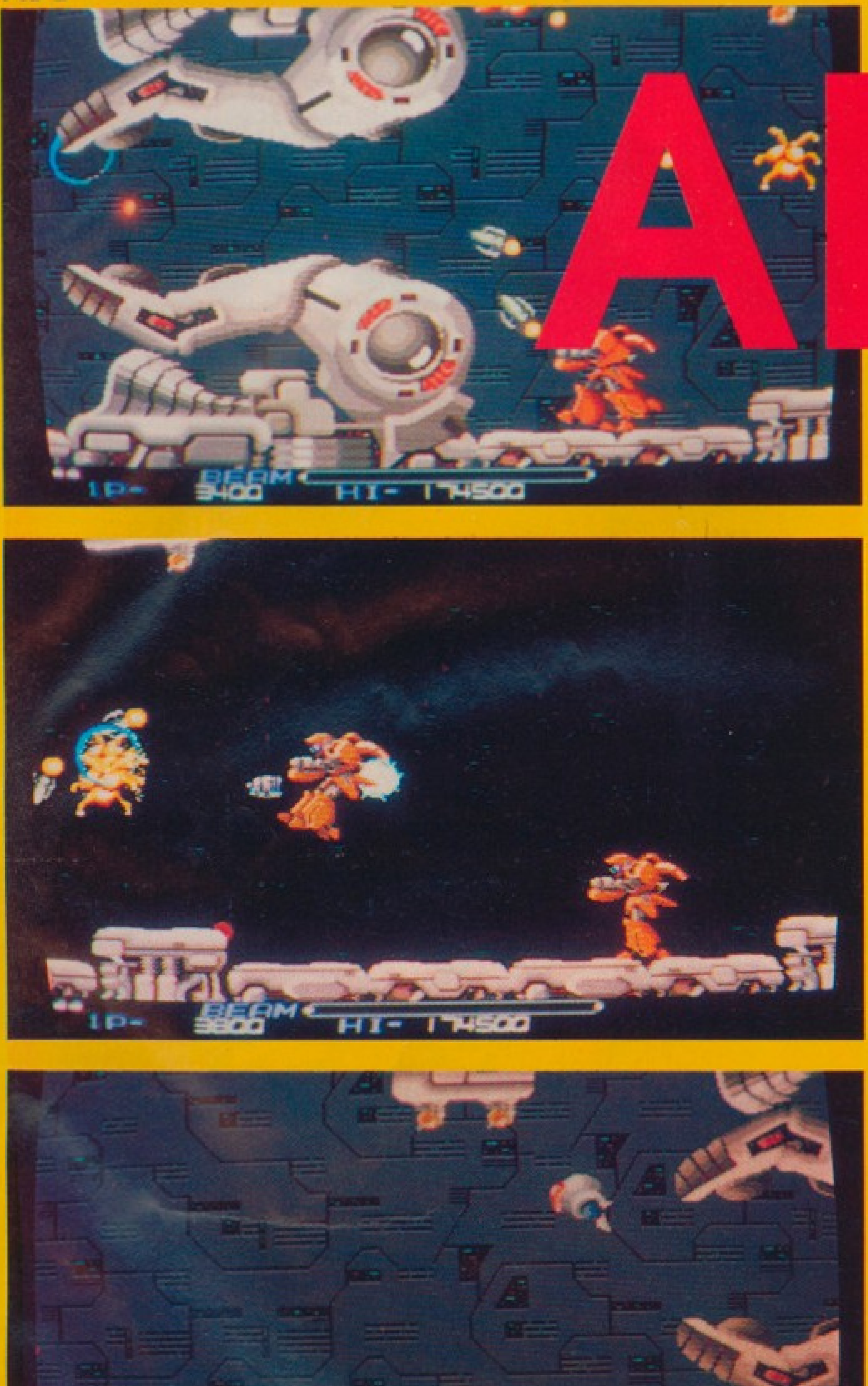


Action-a-go-go in R-Type; bombs, missiles, ground installatiions. There's lots to cope with.

They used to be seedy dens of iniquity where granny-muggers wasted tons of 10p pieces on *Space Invaders* and *Asteroids*. Now the arcades are where you go to see what's going to be on your home micro in six months time. That's why each month in ACE we'll be carrying news of the latest arcade machines, plus playing tips on how to beat the games that are costing you a fortune.

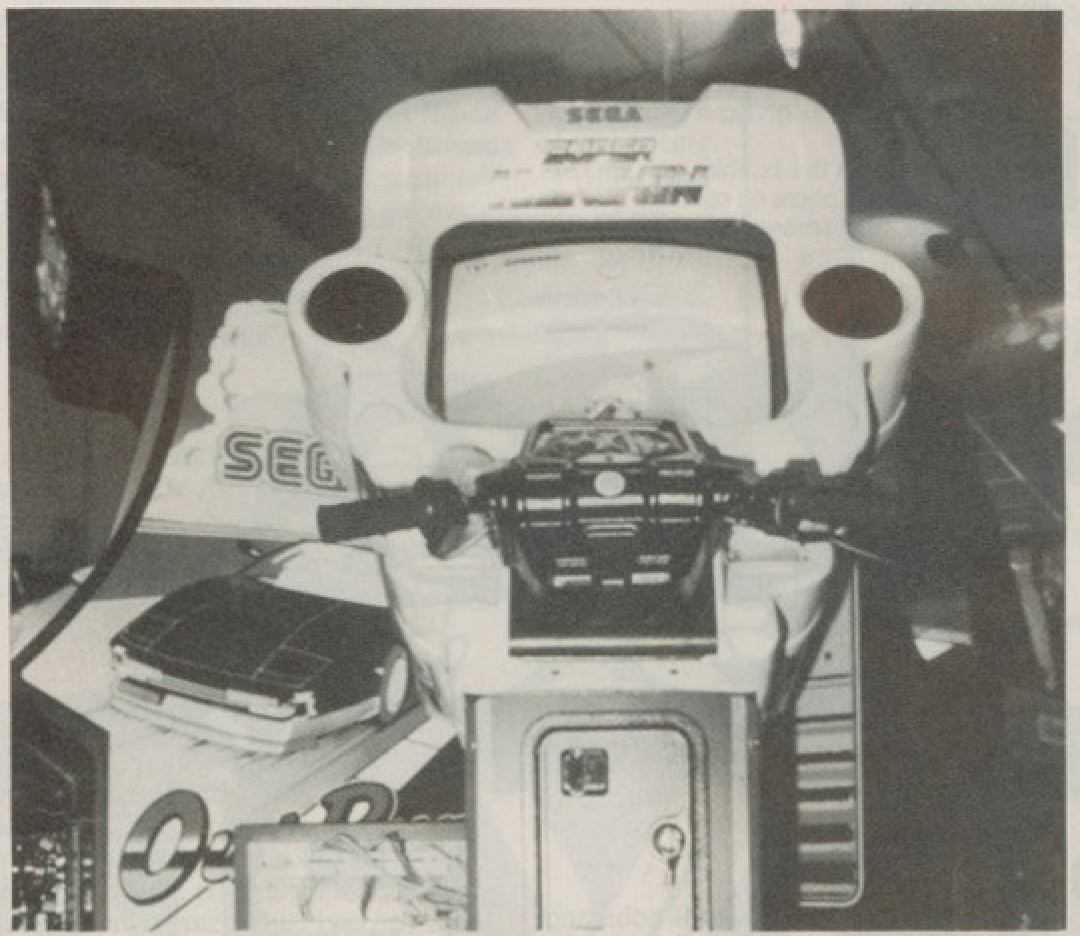
R-TYPE Irem 20p per game

R-Type follows firmly in the footsteps of such classics as *Defender* and *Nemesis* – high-class action to the accompaniment of breathtaking graphics. *R-Type* wins no points for game originality; it's one of those of the horizontally-scrolling fly-your-spaceship-through-the-tunnel games. You'll have to keep your finger pumping the fire button because there's wave upon wave of assorted aliens to zap; from bubble-like ground and ceiling gun emplacements to *Transformer*-like robots that fire salvo after salvo of deadly homing missiles. A guardian monster protects the end of each section; these stunning creatures all have their weak spots but it will take you a stack of coins to discover them.

Extra firepower is available to help you survive in the shape of letters which, when picked up, provide your ship with various aids; pick up the letter M and your ship gains its own homing missiles that lock onto any enemy entity, get the letter S and gain the protection of a shield.

The graphics really are stunning, so colourful and imaginative that they'll have you gasping in awe and appreciation – especially when you get to meet one of those enormous guardians. It's not all cosmetic either; the action comes very thick and very fast and you won't be able to take your eyes off the screen for a second. Don't be deterred by the puzzlingly dull and uninspired title screen; beyond it hides a game that deserves to be a classic , if not for originality then for sheer speed and addictiveness.

ADE ACE



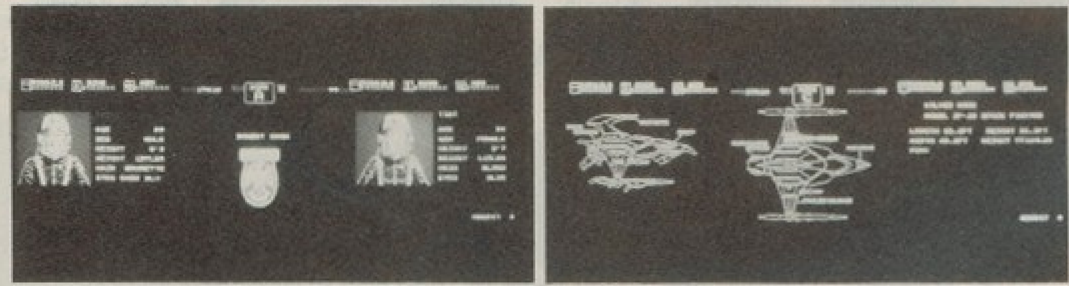
SUPER HANG-ON

Sega 20p per game

Motorcycle arcade games have never been the same since the appearance of the superb *Hang-On* from Sega. The original game boasted breathtaking graphics and gameplay, your on-screen motorbike handling impressively like the real thing.

Super Hang On, again from Sega, is a souped-up version of that earlier classic. You still control the slick bike and rider with a view as if you were actually on the saddle. The racetrack scrolls toward you and you steer the bike through the twisting course – avoiding other riders and road-side obstacles – by using handlebars on the front of the game cabinet. The monitor is housed in a hood shaped like a racing bike's faring while speakers on either side of the monitor blast stereo music and effects at you in stunning style as you play. The handlebars now shudder and vibrate as you gun the engine with the twist-grip accelerator. A choice of three gears (low, mid and top) selected from the handlebars lets you get the best performance from your bike in your race against the clock.

Super Hang-On is even more exciting and thrilling than the original. The improvements turn a great game into a brilliant one which is going to guzzle a lot of your 10p pieces.



Darius set-up screens; choosing your character and the plan of your ship.

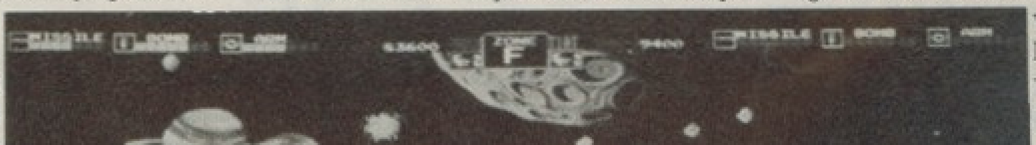
DARIUS Taito 20p per game

The most obvious point about this fast and furious shoot-em up is the massive 45" wide monitor the game's played on – that gives you a playing area three times bigger than the normal coin-op. *Darius* is a one or two-player game; in two-player mode the action is simultaneous.

You control a battleplane flying over a variety of landscapes, including space caves, Van Allen radiation belts and underwater bases. At first sight *Darius* bears a resemblance to that old arcade classic *Scramble;* using missiles and bombs you must weave your way left to right across the scrolling landscapes, avoiding the huge rock formations hanging from the ceiling or rising from the floor. 25 different types of airborne aliens attack in formation from front and rear; 25 more ground-based enemies add to your troubles.

Monster-like battleships guard each end of the section; destroy one of them and you then get a choice of which type of landscape you'd like to fight in. Destroying certain enemies reveals a power unit in the form of a small baloon. If you can collect it you gain additional powers, depending on the colour of the ballon; red ones increase the destructiveness of your air-to-air missiles; green ones increase the destructiveness of your air-to-ground bombs; blue ones give you the protection of a shield.

Darius has certainly got a gimmick, in the shape of that massive screen; but on it you can play a cracking game.



A crazy lunar lndscape on Darius's extra-wide screen.

Beating *Bubble Bobble*

The smash hit Taito game – now appearing on micro, courtesy of Firebird – has caused a lot of us a lot of problems. Here, from the fertile brains of two of the UK's top programmers, Chigley & Bob, are tips to get you going – if you're a novice – and to get you even further – if you're a hardened Bubble Bobbler.

Bubble Extras

WATER Bursting this bubble sends a stream of water in the opposite direction to the one you're facing. The stream will wash away all aliens on contact, but look out – it can also wash you away. Collect diamonds for 7,000 points.

LIGHTNING Burst this and send a lightning bolt across the screen in the opposite direction to which you're facing. Kills all aliens on contact. Collect diamonds for 7,000 points.

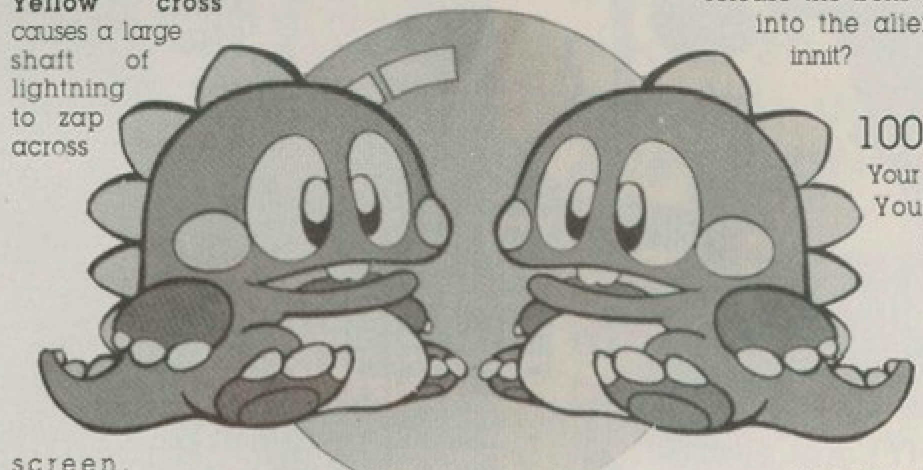
FIRE Bursting this one drops a flame down the screen. On contact with a platform a fire breaks out, killing aliens on contact. Collect diamond for 9,000 points.

LETTERS These spell the word EXTEND. When all letters are collected you get a bonus life.

PULSING Bursting this gets you 10,000 points and changes the bubbles you fire into fireballs for a limited number of shots.

Bobble Bonuses

Candy Sticks make a large bonus appear when you kill the last alien.
Pulsing Hearts make you indestructible for a short time, so that you can run over and kill the aliens.
Orange sweets increase firing speed.
Cyan sweets increase weapon speed.
Purple sweets make bubble travel further.
Shoes make you move faster round the screen.
Umbrella warps you forward a random number of screens.
Bauble ring gives you points for moving left or right.
Silver ring causes stars to stream down the screen, killing aliens on contact.
Purple kettle gives full fire power.
Blue kettle gets extra points.
Red kettle explodes into six large pieces, killing all aliens.
Skull kills all aliens.
Secret door get you into a secret screen (with mucho points).
Spell book explodes, killing all aliens.
Bomb explodes, killing all aliens.
Clock resets timer on current level, and changes screen colours.
Watch freezes all aliens, but the timer continues and you do **not** become indestructible.
Potion bottles fill all available space on screen with bonuses, making aliens disappear. Collect bonuses before timer runs out; you get no. x 500, giving a maximum of 100,000.
Red cross changes the bubbles you fire into fireballs, which kill aliens on contact.
Cyan cross fills screen with water, killing all aliens.
Yellow cross causes a large shaft of lightning to zap across screen. Kills aliens on contact.
Fruits give you different amounts of points.
Purple necklace starts a ball bouncing around the screen, killing all aliens on contact.
Green lightning potion bottle appears on final screen only: changing bubbles you fire into lightning bubbles.



PROBLEM SCREENS

When – or rather if – you get through to the later stages of the game, then there are certain screens that will give you a real hard time. Here's advice on two of them.

96

You've got unlimited time on this screen, so there's no excuse for rushing it. Push the lightning bubbles to the right until they are above the gap. They will then float down and position themselves next to two trapped aliens. Now wait for a water bubble and burst it, making sure you are facing right. The water will wash down the small gap where the lightning bubbles have stopped. As you pass, the bubbles burst and release the bolts of lightning into the aliens. Simple, innit?

100

Your final screen. You'll find a huge alien who is unaffected by ordinary bubble fire. Each time you appear on screen you must collect the green potion bottle. As the overgrown alien bounces around the screen you must dodge him and his fire. Stay in and around the corner and never stop firing. Blast a column of bubbles up the side of the screen and jump into them. This releases a sheet of lightning bolts across the screen to hit the alien. It takes a good 100 hits to turn the creature into a massive bubble. Burst this immediately or you will have serious problems. When the bubble bursts the alien dies and you get the final sequence....which we won't spoil by describing.

ARCADE ACES!

If you're a top gun on any of the latest coin-op sensations, don't you think you should be sharing your insider knowledge with the rest us? Each month we'll be running tips on the top machines. If yours are chosen as Tip of the Month, then you will receive your choice of a game from our Screen Test section. And that could be worth 25 quid to you.

Please make the tips detailed, clear, and – if possible – include diagrams. The address to write to is:

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The chronicles of the 'Knights of the Avalon', is a new 100 player computer moderated Fantasy Play By Mail game from JADE Games. Startup is **FREE**, with further turns costing 70p, players outside of the UK 1.00. The game features, 1000s of player armies and fleets contantly involved in conquest, a playing area of 1,250,000 sq miles with over 100,000 locations. A highly developed class system of squires, knights, lords etc fighting to become emperor. An economic trade system with 1000+ trade items, merchant and political banks, stock markets and trade treaties. Religions based on a planet wide network of temples and monasteries. Players having the choice of accepting one of the twenty existing gods or creating their own god and religion. A hierarchy of gods capable of direct interaction with players. Alliances of trade, religion, politics and military might. + MUCH MUCH MORE, games limited only by the players imagination.

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Lucky STrike!

ACE and Atari bring you a dream of a competition – to win the machine of your dreams

Here's your chance! We've got three aSTounding Atari systems to give away – three ST computers PLUS monitors to whisk you away into the world of 16-bit software the moment they land on your desk!

If you've been **THIRSTING** to spill alien blood in *Barbarian*, going **PURPLE** at the thought of splashing 16-bit colour across your screen with Atari's *Neochrome*, or **SOUNDING OFF** off in disgust because your micro can't handle the MIDI output from your music keyboard – now's your chance!

Here's what you've got to do. On the opposite page you'll see three images taken from screenshots of Atari software titles running on the ST. Using your skill and judgement, just match up the image with the name of the program you think the shot was taken from.

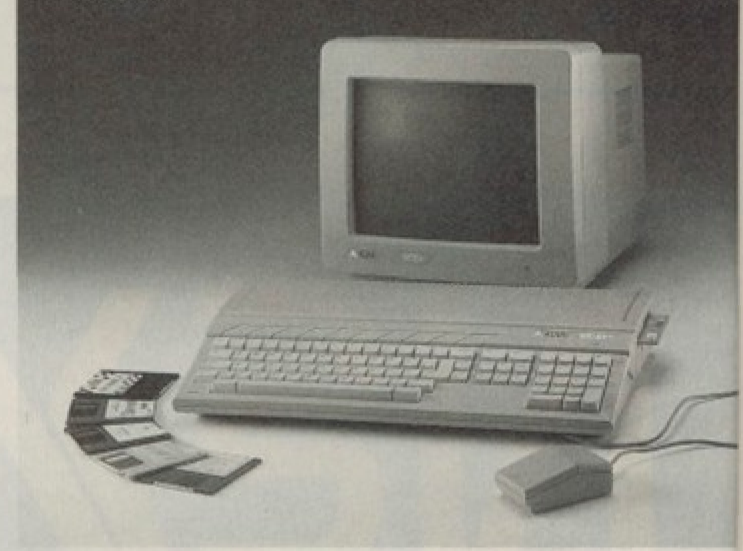
For example, if you think that shot number 1 comes from a screenshot of *Neochrome*, then enter a 1 in the box opposite *Neochrome* on the entry form provided.

Once you've identified all three images, just add your name and address in BLOCK CAPITALS and send your entry post haste to the address printed on the form. Closing date for entries is 10th October.

All correct entries will be put into a draw, with first prize going to the first entry out of the hat. The black-and-white systems will tumble into the laps of the second and third entries drawn. Winners will be notified by post and receive their prizes in a splendiferous ceremony at the ACE offices – or by post if attendance is inconvenient.

So get out that pen, fill in the form, and get it off to us as quickly as possible! You could soon be spending the money you've been saving for your ST on champagne instead!

A.C.E.'s aSTounding prize - a complete colour Atari ST set-up worth £700.00 for the first correct entry out of the hat, while second and third runners-up each get Atari ST mono systems worth nearly £450.00 apiece.



THE PRIZES

FIRST PRIZE

One Atari 520 ST-FM with built-in 0.5 meg disc drive plus colour monitor (retail value a staggering #699.98!).

This is the system we've all been drooling over. Just in case you're still in the dark ages, here's the full tech spec of Britain's fastest selling 16-bit entertainment system:

Built-in 0.5 megabyte capacity disc drive. Rapid loading of software from readily available robust 3.5" diskettes.

512K - enough to swallow the biggest games and applications.

512 colour palette - get up to sixteen colours on-screen at once in 320x200 resolution.

Built-in RS232C and parallel ports - no problems hooking up printers and modems.

MIDI port included as standard - plenty of software available to help you manipulate other MIDI instruments - guitars, keyboards, drum kits etc., turning your ST into a powerful music composing and editing instrument.

Mouse, ST BASIC, and **GEM desktop** all included, plus two standard Atari joystick ports.

Colour monitor included! Normally this would set you back £399.99 on its own. Stunning colour display that really does justice to the ST's huge colour palette.

SECOND AND THIRD PRIZES

Atari ST-FM as above together with hi-resolution black and white monitor - that's nearly £450.00 worth of hardware that could be yours for the price of a stamp. And who's complaining about monochrome when you can plug the computer into your colour TV anyway? If they're watching the box, just remind them about the £100 license they had to cough up for to receive the programmes - chances are it's up for renewal soon, in which case they might as well unplug the aerial for a year and save a bit of money!

Three STeps to a free ST...

Just work out which shot comes from which of the three programs – Neochrome, Crystal Castles, or Star Raiders - then enter the shot number opposite the program name on the entry form. Simple!

A Helping Hand...

You're panicking. You can see the chance of a free ST slipping away from you as you check out the screenshots and find you haven't the faintest idea which is which. Ahhh...poor you. And you think we're going to help you??! We're practically throwing these prizes at you, and we're going to give you HELP??!

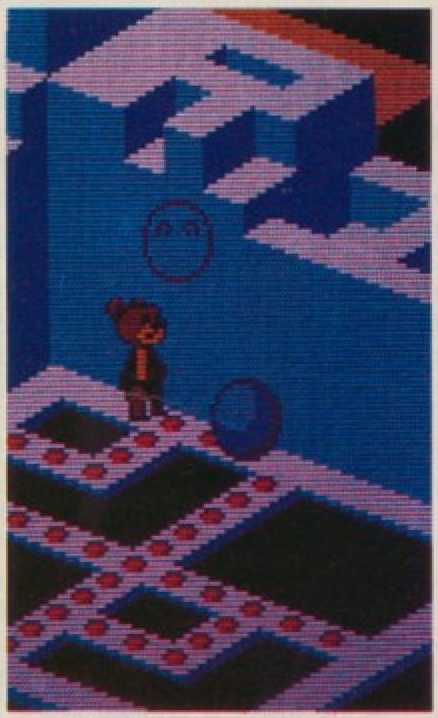
Oh alright then – and just in case (Heaven forbid) we should actually have to keep these prizes for ourselves, here's some info to help you make up your mind:

NEOCHROME...This is one of the most popular ST art packages, with 38 different paint brushes and spray cans. One of its best features is the 512 colour map that stays on screen while you work for rapid colour selection from the palette. While you're actually drawing, the map disappears and is replaced by a magnification of the area curently being worked on - a neat bit of program design that really speeds up precision drawing.

CRYSTAL CASTLES...This was a classic Atari coin-op arcade game. Friendly, furry Bentley has to negotiate a series of 3-D multi-level mazes. Horribly addictive.

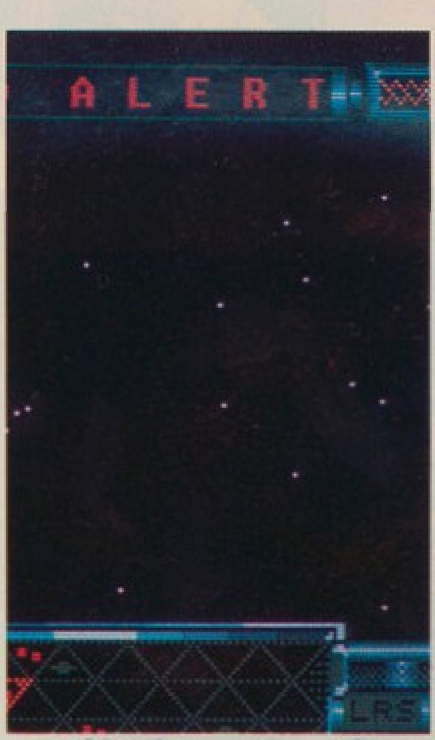
STAR RAIDERS... the classic space game in which you tally-ho across the universe to destroy the Zycroids. The big daddy of all space adventures.

OK, now check out those shots again and nail yourself a free ST!



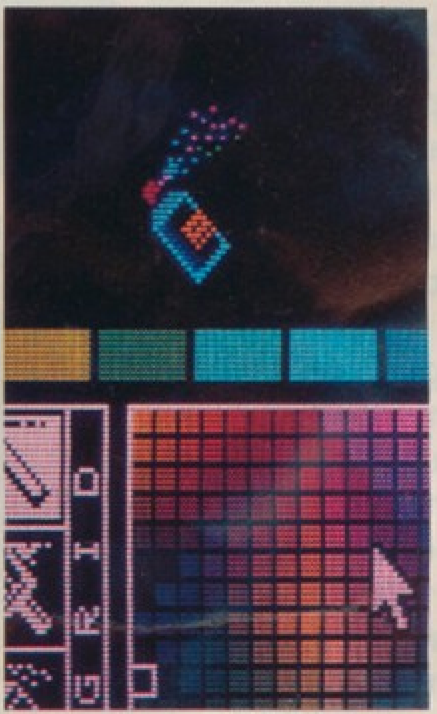
Shot number 1

Ooooh...isn't this tricky? Could this be..er..Teddy Bear's picnic?



Shot number 2

Be alert, this game obviously needs lerts...



Shot number 3

Obviously a shot from Revenge of the Killer Deodorant...or is it?

Entry Form

Your name:

Your address:

I think that:

Image number _____ was taken from NEOCHROME.

Image number _____ was taken from CRYSTAL CASTLES.

Image number _____ was taken from STAR RAIDERS.

Please tick one of the following boxes before posting your entry:

☐ I do not own a computer

I own a:

☐ Commodore 64 or 128 ☐ Sinclair ☐ Amstrad 6128
☐ Amstrad 464 ☐ Atari ST ☐ Commodore Amiga
☐ IBM PC-compatible ☐ Apple Macintosh

☐ Other computer (please specify):

RULES

1. The closing date for entries is October 10th 1987.
2. Employees of Future Publishing Ltd, Atari Corporation, and their families are ineligible for entry.
3. The winners of the competition shall be the first three correct entries drawn at random from amongst those received prior to the closing date and no correspondence will be entered in to.
4. Winners will be notified by post and their names published in the December issue of ACE.

Send this form to:

Atari Competition Advanced Computer Entrertainment 4 Queen Street BATH BA1 1EJ

THE GRAPHICS SCENE

The hardware, the software, the peripherals and the techniques for graphics – all on show in ACE's regular Computer Graphics slot.

From Spectrum sprite to Spielberg movie, you just can't avoid computer graphics. That's why we're introducing this section of section of ACE, dedicated to covering all you need to know about this exciting growth area of computers. Whether you want to design a game on your Spectrum or create a TV ad with your Amiga and video, this is where you'll find out about the software, the techniques and the peripherals that have put computer graphics at the forefront of computer entertainment. We kick off this month with a look at just what computer graphics is and and what are the software and hardware tools you need if you want to get involved.

Resolution and colour

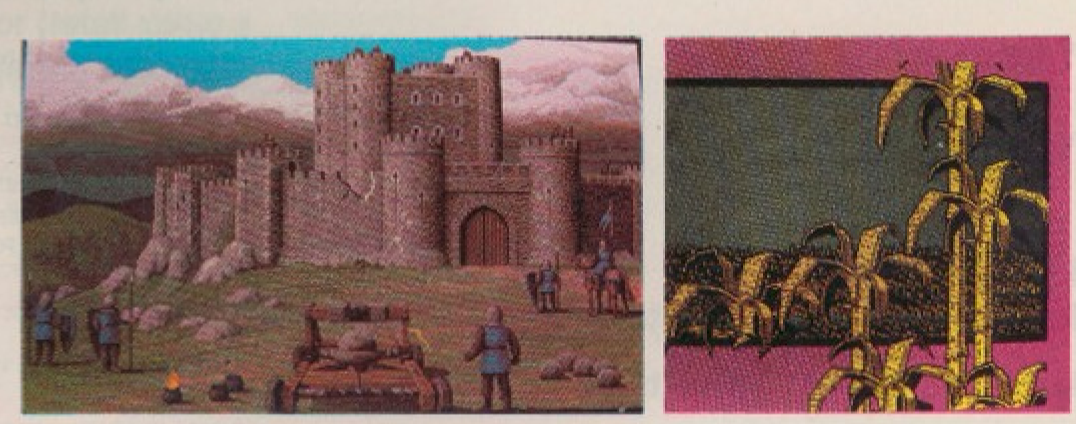
The number of dots that can be shown on a computer screen and the range of colours it can display are vital considerations in computer graphics, and this is where the great divide between 8-bit and 16-bit machines occurs. But the biggest difference is not, as you might expect, in the greater resolution of the more powerful machines – it is the number of colours they can display that sets them apart. In fact, most of the graphics-orientated software offered so far for the Atari ST and the Amiga (both art programs and games) uses the low resolution 320 x 200 mode similar to that used on the Commodore 64 and Amstrad CPC's.

The difference comes when you realise that the ST can display 16 colours from a palette of 512 and the Amiga 32 from 4096, compared to the C64's 16 from 16 and the CPC's 4 (or 16 in low-res 160 x 200 mode) from 27 available colours. The Amiga, in its special 'hold and modify' mode, can display a mind-boggling 4096 colours.

The importance of colour in computer graphics stems from the way that the human eye and brain work together. If possible the brain will always try to make sense of an image sent from the eye. Remember the old Silk Cut adverts? You could always make out the image even when made up of large squares of colour at very low resolution. The brain is fooled into ignoring the jagged edges and inconsistencies. A computer image works in a similar way; it is the subtlety and range of the colours that is most important.

You can produce images on a computer screen in two main ways, one really developed from the other. First, with a programing language such as Basic you can put an image together using simple point, line and – if available – more complex shape and fill commands. By combining simple mathematical operations and functions you can create highly elaborate pictures, especially with modern fractal techniques. Even the hugely expensive animated graphic sequences from California or Japan are produced in this way. (More of these in later issues.) The complexity and degree of animation of the image produced depends on the type of machine and the power of the languages it has available. These are described in a box elsewhere.

Second, you can use a program which makes point, line, shape, fill and a host of other drawing facilities available on command so that the computer can be used as a paintbox or drawing board. The range of software available is very wide, and in recent months – with the gaining popularity of the ST and Amiga – it has started to become extremely sophisticated. It is only now that the true potential of these 16-bit machines begins to become apparent.



(Right) Defender of the Crown on the Amiga & (left) Warlord on the Amstrad: **the same screen resolution, but what a difference those extra colours make.**

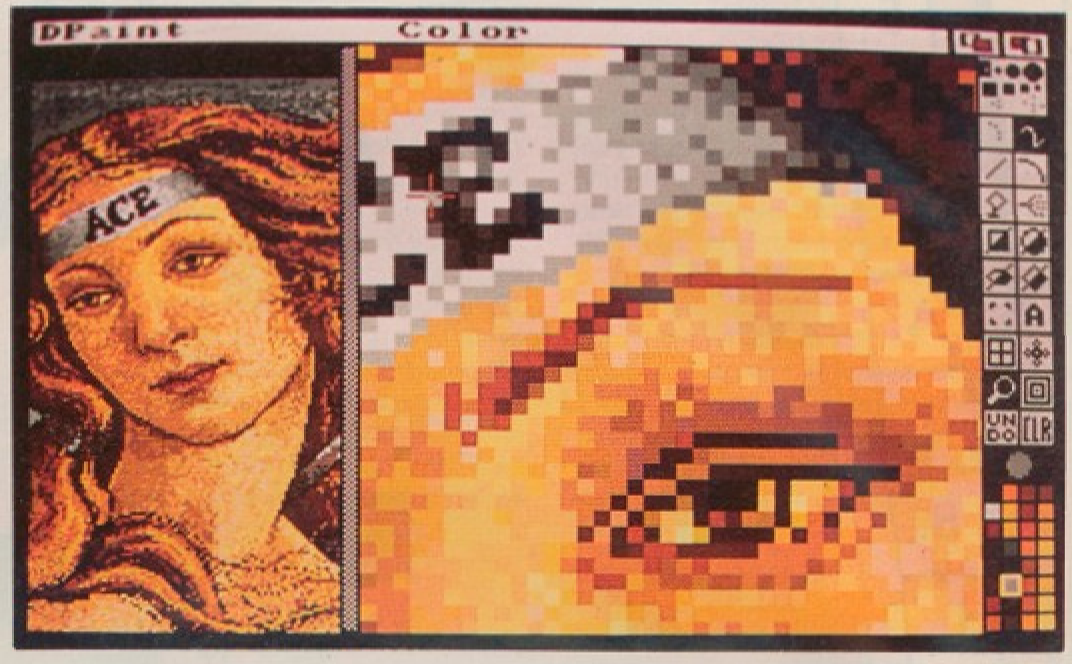
Which software?

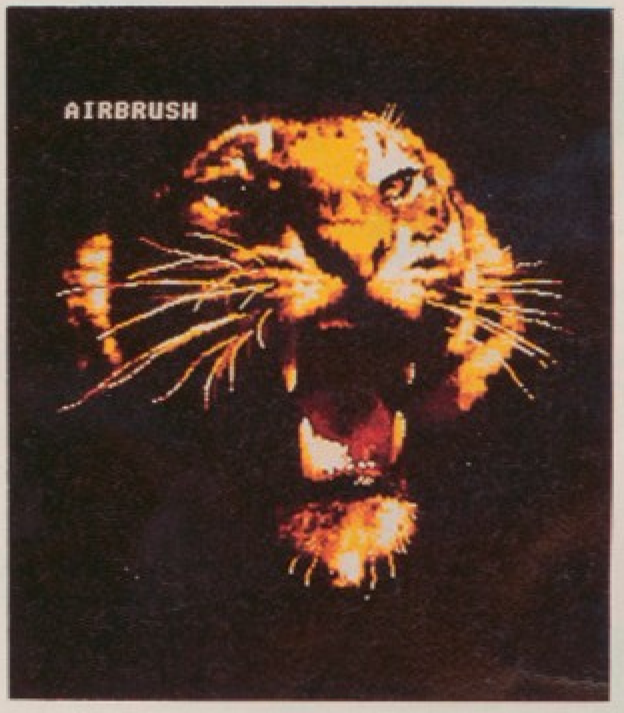
The most natural divisions in the range of graphics software are between 8-bit and 16-bit machines and between applications that are 'object orientated' and those that are 'bit mapped'. (See the *Graphics Jargon* box for an explanation of the difference.)

The best bit-mapped Paintbox program, Rainbird's *Advanced Art Studio*, is available almost universally. (Only on the Amiga is it not implemented - yet!) On the Spectrum it is excellent - the most powerful and easiest to use piece of graphics software ever written for that machine, putting *Leonardo* and *AMX Art* out in the cold. Even on the C64 and the Amstrad CPCs where the competition is harder it still comes out top, though *Artist 64* on the C64 and *AMX Art* on the CPC's come close. (*AMX Art* suffers on all machines by not having a full screen-drawing area). *The Image System* deserves an honourable mention for its unique facilities, especially on the C64.

On the Atari ST the competition is even stronger; *Advanced Art Studio* is pushed into second place by *Art Director*, which is by far the most powerful graphics package for the ST - but twice the price! *Degas Elite* is also a very good package - but at around £60.00 it should be - and though it has been left behind by events *Neochrome* still has its attractions.

For the Amiga there is no doubt that *Deluxe Paint 2* rules the lines - and in perspective too! In fact, it's hard to think to think of any graphics program on any sub £10,000 machine so far that can compare. The price is pretty Deluxe too though - around £130. *Aegis Images* and *Deluxe Paint 1* are about equal in power, though the latter is the easier to use.

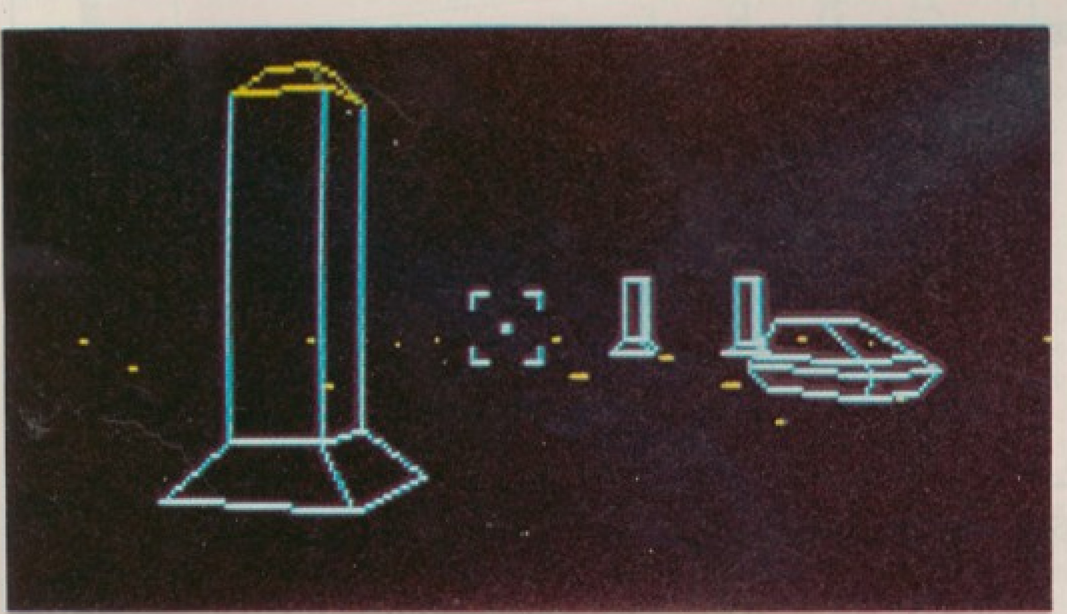




(Above) Deluxe Paint II on the Amiga: **a piece of Botticelli magnified for some detail work, and also actual size on left of screen.** (Left) Art Director on the ST: **an impressive tiger drawn with this powerful package, but next to an Amiga screen the ST's limitations do show.**

Beyond painting

Paintbox programs like these are not the only packages to use bit-mapped graphics. The speed and power of the ST and the Amiga allow images produced using a paintbox to be moved about the screen, distorted and scaled in real time to produce animations. *Film Director* on the ST and *Deluxe Video* on the Amiga both provide easy to use and powerful environments for the production of animations. *Aegis Animator* (available on both machines) is also bit-mapped but uses object-orientated animation as well to produce smooth transformations and 'tweening' (see *Graphics Jargon* box again).



Starglider on the Amstrad: **almost alone among games, vector graphics programs like this are object orientated rather than bit-mapped.**

For many micro users the most familiar application that uses an object-orientated approach is CAD (Computer Aided Design). Almost every machine ever built has some sort of CAD program and some of them work pretty well. Generally speaking, 2D CAD packages tend to be rather dry and unexciting (though very worthy and useful), we'll concentrate on 3D programs which are more interesting and, on the 16-bit machines, have fantastic potential for animation.

One of the first packages for the Spectrum was *Vu-3D*, a 3D drawing program. It worked well then and is still worth buying even today if you see it in the

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budget bin. Not to be found in any bin is Glentop's *Graphics Drawing Board*. This is an excellent and easy-to-master 3D drawing package for the C64 that is extremely powerful, using icons to provide a series of predefined shapes that can be distorted and assembled into a 3D perspective image.

Equally worthwhile, though slightly less flexible, is AMX's mouse-operated *Zicon* for the CPC machines. As usual from AMX it has a graphically pleasing workbench. Less accurate as a CAD 'tool' but even more fun than *Zicon* is Amor's *Model Universe* – also for the CPCs – which animates your 3D creation and allows you to 'take a walk around it'. As with the other 3D packages mentioned above, your creation is a transparent 'wire frame'. It takes a great deal of processing time to provide 'hidden line removal' or coloured surfaces, and especially for a real-time animated drawing the 'redraw time' (see *Jargon* box) on 8-bit machines can be rather long.

Redraw time is much less of a problem with 16-bit machines and two very recent packages for the ST and Amiga respectively show the way for some very exciting developments in animation. *Cyber Studio* for the ST allows you to create complex solid 3D objects which can be lit from several directions (with full shading) and then animated in front of a background picture created in *Degas*, *Art Director* or the like.

Similar in concept is *Videoscape 3D* by Aegis for the Amiga. But where *Cyber Studio* stops, *Videoscape* takes off, using high resolution with 16 colours, overscan to eliminate the border, a fractal scene-generator to build realistic landscapes and 4096 colour hold-and-modify screens for very complex scenes that are to be recorded to videotape. Overall it's an astonishing package that almost rivals mainframe systems and points the way for what we have in store from future animation packages. We'll be looking at the program in depth, and the techniques it uses, in future issues of ACE.

GRAPHICS JARGON

Bit-mapped vs. Object-orientated
Almost all of the many graphics programs available today fall into one of these two categories, according to the way they store and manipulate picture information.

Paintbox or 'Art' programs are *bit-mapped*, and deal with your picture in the same way it actually appears on screen – as a pattern of coloured dots. When you add lines, circles etc. to a picture the program thinks of them as dot-patterns rather than pieces of geometry. Using the 'zoom' option on a bit-mapped package doesn't show you more detail – it just shows you the individual dots of the picture more clearly.

CAD or 'Drawing Board' programs are *object-orientated.* Your drawing still appears on-screen as a pattern of dots, but the program treats it as a collection of individual elements – lines, circles and other shapes. The dot-pattern you see is just the program's best approximation of the actual picture, and zooming in will show you more detail. This approach not only saves on storage space but also allows kinds of manipulation bit-mapped programs can't manage, especially if you're working in 3D.

Redraw Time
The time taken for the new position of an 'object' to be calculated before it can be drawn on the screen.

Tweening
An animation term, short for 'inbetweening' – automatically filling in the 'in between' stages of a transformation from one shape to the next.

WHICH MACHINE?

Of the more popular machines the Sinclair Spectrum is the least well-equipped for sophisticated graphics. It has a single rather low resolution (256 x 192) and can manage only 16 colours, though all these can be on-screen at once. The display is limited mainly by the attributes problem (also suffered to a lesser degree on the C64). In each 8 x 8 pixel character square only one foreground and one background colour can be used. Spectrum's original Basic was pretty rudimentary, though it has a good circle command and has been improved over the years.

The original Basic on the C64 was all but useless for graphics, having hardly any relevant commands. This has been rectified by a range of more sophisticated implementations by third party producers. The C64 display is reasonable at 320 x 200 in a variety of colour combinations but is dogged by various attributes limitations. This is counterbalanced by its having 8 hardware sprites.

There are no hardware sprites on the Amstrad CPC's – but no attribute problem either. It has three resolution/colour combinations; Mode 0 with 16 colours at 160 x 200, mode 1 having 4 at 320 x 200, and mode 2 with 2 at 640 x 200, all these chosen from a 27 colour palette. Amstrad Basic is excellent apart from the lack of a fill command on the 464, and there are now numerous other languages implemented – including C.

16-bit seduction

C has certainly become the most fashionable language to use on the newer 16-bit machines like the Atari ST, and there are several versions available. Nevertheless, Basic also has a high profile with *Fast Basic* and *GFA Basic*, both of which are very fast and support the GEM graphic environment that is bundled with the machine. The ST has three resolutions; 320x200 with 16 colours (chosen from 512), 640x200 displaying 4 colours, and a monochrome high resolution of 640 x 400. The biggest problem with the display is that high res requires a special monitor which gives excellent clarity but cannot be used at any other resolution – 2 monitors for one machine!

The Amiga also has problems in displaying high resolution images but it gets round it with a different but almost as annoying solution – interlacing. 4 resolutions are provided on the Amiga: two normal ones, 320 x 200 in 32 colours, 640 x 200 in 16 colours: and two interlaced ones, 320 x 400 with 32 and 640 x 400 with 16 colours, all chosen from 4906.

Interlacing provides the extra colours by making two scans of the screen so that the refresh rate of each pixel is about 25 per second instead of 50. This results in a distinct and annoying flicker which can only be removed with an expensive high persistence monitor. There's also the stunning (but rather impractical) 'hold and modify' mode mentioned earlier, which gives 320 x 200 in 4096 colours – but with some very nasty restrictions.

The Amiga has a WIMP environment, and a mouse as standard. It has a reasonable Basic and many other languages are available. The greatest advantages of the machine are the Blitter chip, which can move and combine bit-mapped images with incredible speed, and the Copper chip which allows mixing of several different resolutions and pallettes on the same screen.

Despite the limitations of the cheaper machines there's still a lot you can do in the way of graphics; you only have to look one of the better Spectrum games to see that while it may be cheap and getting on in years, it is no mean performer. The same applies also to Amstrad CPCs and the Commodore 64; they too will let you produce wotrthwhile graphic output.

But when it comes to video link-ups, animation and the really sophisticated stuff it's clear that both ST and Amiga are the machines to get in to – if you can afford them.

GRAPHICS EXTRAS

The deeper you get in to computer graphics the more mouth-watering add-ons you'll be tempted to buy. So we've taken a tour of the graphics extras that could be on your shopping list to give an idea of what's available, what it can do – and what the damage might be to your wallet.

Light Pens

As art add-ons go, the lightpen looks pretty straightforward to use: you just hold it up against the screen, press the button and – software permitting – you can draw onto the screen as if was a piece of paper.

In practice, they do have their disadvantages. For a start, third party support for them is low – that is, very few software companies write art packages you can use with lightpens.

Another thing to bear in mind is the position of your TV/monitor screen. Unless you fancy tipping your telly on its back, you'll have to draw against a vertical surface. This can cramp your drawing style – and your wrist – quite badly.

There are other little drawbacks too. Lightpens work by detecting the light given off by a particular part of the screen. If you're trying to point to a dark area – while drawing in white on a black background, for example – there may not be enough light from the screen for the pen to function.

In a related problem, you may find the cursor tends to get "sucked" towards light areas of the screen. Add to this the fact that the pen is probably blocking your view of the cursor anyway, and you've got something of an accuracy problem. You can pick up a light pen plus software for 8-bit machines for as litle as £20.

Graphics Tablets

If you want the straightforwardness of a lightpen without the more obvious drawbacks, a graphics tablet might well appeal to you. Rather than drawing on the screen you move a stylus across the surface of the tablet. This in turn moves a cursor on screen, which actually does the drawing.

On a good graphics tablet you can lay a drawing over the pad, trace round it with the stylus and so copy it onto the screen. More expensive pads are pressure-sensitive, and don't need a special stylus. With one of these you can, in theory, draw quite normally and yet have a copy of your drawing on screen at the end of the session. Tablets can cost anywhere between £150.00 and £600.00; obviously, at the upper end of the price range, you're paying for very accurate and sophisticated gear.

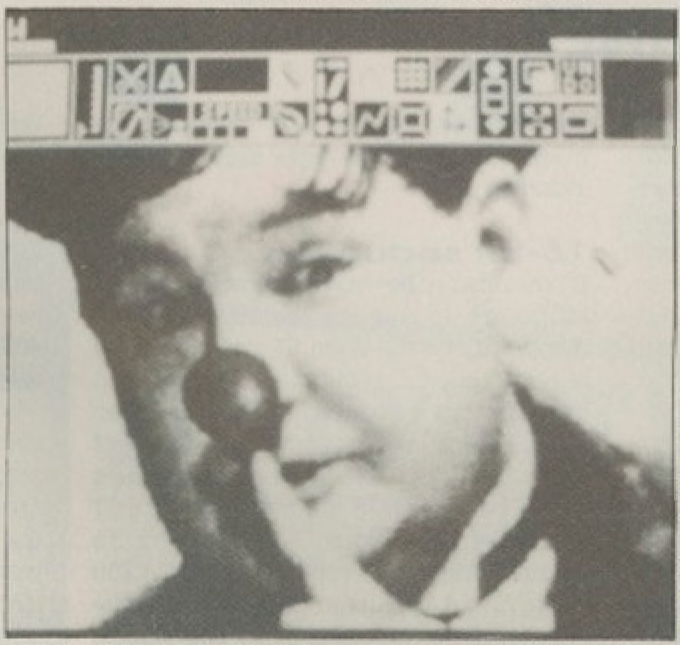
Mice

Now almost obligatory for computer artists, mice are amazingly useful drawing tools. They're also the main hardware requirement for those oh-so-fashionable pulldown menu art packages. ST and Amiga users are already equipped with mice of course, but the dominance of pulldown programs like *Art Studio* on the 8-bit micros means a continuing demand for the little plastic beasts as add-ons.

Mice themselves are cheap – their increasing popularity over the last few years led to mass production in the Far East – but you can't just buy one and use it. There's nowhere to plug a mouse in on a Spectrum, C64 or CPC so you'll need an interface. Mice magnates Advanced Memory Systems (confusingly shortened to AMX) and Kempston Data both sell mouse/interface packages for the 8-bit machines. Mice can be as cheap as £40.00 or as expensive as £200.00.

Digitisers & Scanners

Digitisers and scanners allow you to feed video, TV and paper images into an art package allowing you to create animated sequences and produce images of almost photographic quality.



A digitised Ollie, loaded in to Art Director running on the ST. Ollie's nose was then added uising the software.

A digitiser takes the signal from a video camera or recorder and converts it into a picture on your computer screen. Point your camera at people, objects or views and an instant portrait, still life or landscape is fed into your computer. Save the image as a screen file, load it into a good art package and you're away. Combining and modifying digitised images in different ways can produce some very striking artwork indeed.

A scanner is rather more specialised than a digitiser: it converts flat images – drawings, photographs and the like – into computer screens. A digitiser, camera and rostrum could achieve the same thing, but scanners tend to be cheaper.

ART APPEAL

We want your input – right here on these pages. If you're involved in computer graphics then send the fruits of your labours in and we'll try to hang them in the best possible light. We want you pictures and designs; but we'd also like your notes on how you did them, what software and hardware you used and any tips you can give on graphics techniques to ACE readers. Note that although we'll try we can't always guarantee to return work sent to us. Send your work – preferably on disk – to.

Graphics Scene
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Bath BA1 1EJ

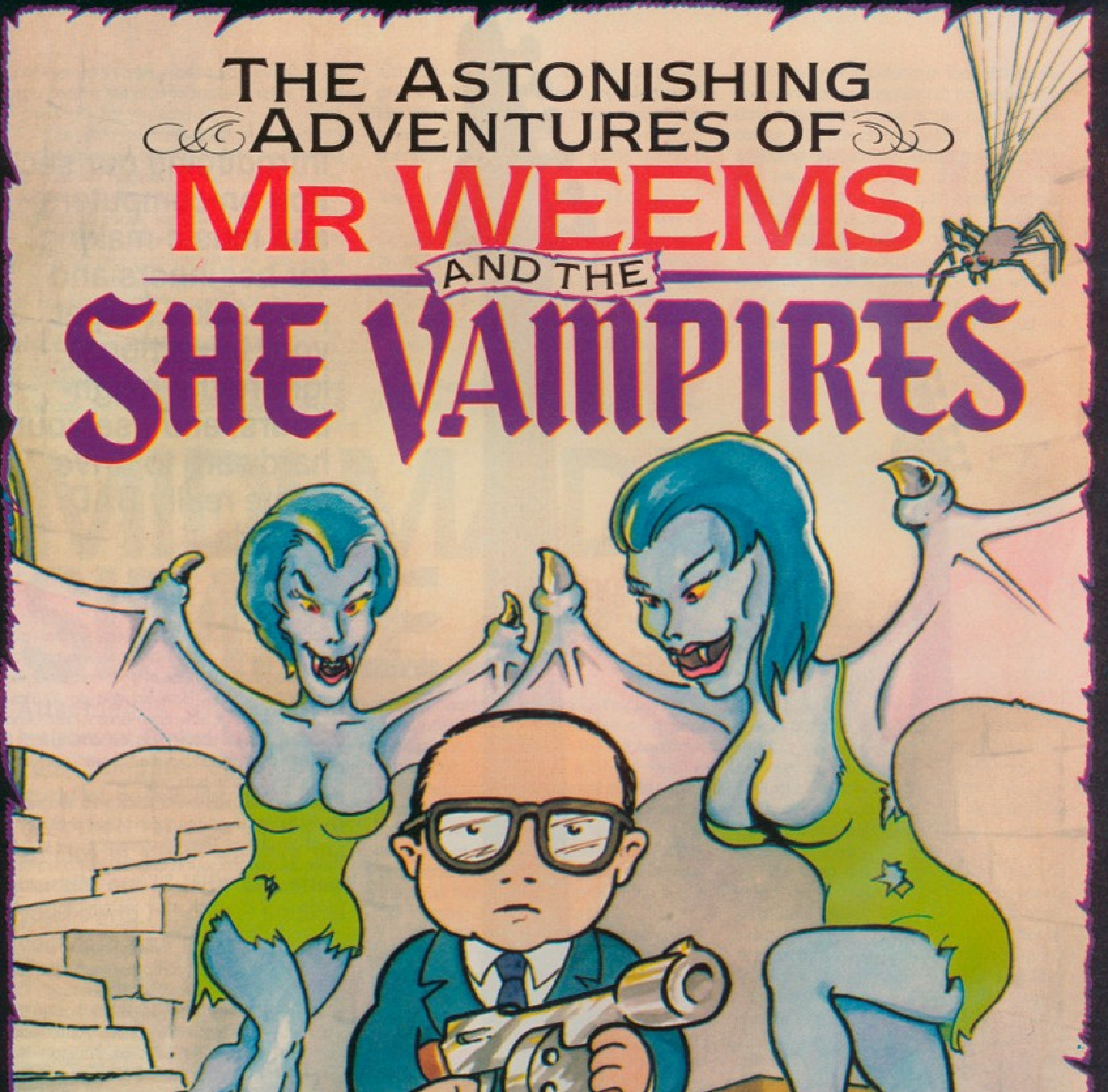
Of course, there is a drop in quality from the original to the scanned or digitised image. On the Spectrum such images are necessarily monochrome, and on most of the graphically more powerful machines the best you'll get is grey scale – a series of shades bridging the gap between black and white, to try and take some of the 'graininess' out of the picture. Clever pallette changes can give the illusion of colour here, but you really need machines of the Amiga's calibre to get proper colour digitising.

Scanners can come as cheap as £80, but once you start thinking about video cameras you're up in to the several hundred quid bracket.

Genlock

At the limit of graphics hardware for home computers, *Genlock* for the Amiga allows you to mix the video output of your computer with images from other sources: This isn't the same thing as digitising at all: the images coming in from outside – whether from TV, video recorder or camera – are used as they are, meaning that there's no loss of quality at all. They simply replace the background the Amiga would normally have to its pictures, allowing you to subtitle your videos for the hard of hearing, for example, or run animated sequences over The Nine O'Clock News, if the fancy takes you.

Whether we'll ever see *Genlock* for the 8-bit machines remains doubtful, but it wasn't so long ago that you could say the same about digitisers. ST owners should definitely watch this space – you could well be seeing *Genlock* this side of Christmas, so start drafting your letters to Santa now!



Mr Weems, the failed accountant, has forced his way into the Mansion of the She Vampires. Armed with rapid-fire garlic gun and smart-garlic pill, he must blaze his way through six lethal levels of the Mansion. Sharp-fanged bats, dim-witted, Frankenstein monsters, and thirsty She Vampires stand in his way. Weems has just one small problem. Staying alive!

Spectrum cassette £7.95.
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TUNE IN

CASIO
MIDI GUITAR

Introducing our section on computers and music-making, for beginners and pros alike. Forget your inhibitions, ignore the neighbours, and use your hardware to drive some really BAD sounds...

Home keyboards, synthesisers, digital guitars, drum kits, there's no limit to what you can plug into the back of your computer via a MIDI interface. How do you do it? How much (or rather how little) does it cost? And what sort of kit should you be looking for? If you've ever asked yourself these questions, then this column is for you.

Most readers will be familiar with programs like Rainbird's Advanced Music System or similar utilities. These programs allow you to manipulate the sound chip of your computer to produce different notes and tones. Rainbird's program also includes a music scoring and editing facility.

Let's face it, however, the sounds that your computer can dish up aren't always that exciting. The Commodore 64 is probably the best available - unless you're lucky enough to have an Amiga - but machines like the Amstrad or (even worse) the Spectrum just don't score highly on the musical scale. Even the Atari ST's sound chip is a bit of a squeaker.

What's more, all home computers limit you to three (or at the most four) channels and - of course - their keyboards don't exactly lend themselves to highly strung musical performance, or performance of any kind come to that.

All these machines, however, can be interfaced with cheap and readily available portable keyboards, guitars, drum machines, and synthesisers to produce some quite astonishing musical systems. It's these systems, and how to choose and use them, that we'll be concentrating on over the next few months.

But let's get one thing clear right away. You do not have to possess musical skills. You do not need perfect pitch. You do not need to know the difference

HIGHLY STRUNG

Casio's new 500 and 510 MIDI guitars give you the opportunity to store and edit your strumming at the computer keyboard. Not only that, but you can use them to drive a keyboard or other MIDI compatible instrument. Featuring octave switching and 96 programme changes, these two will set you back £499.00 each (inc VAT). If the price scares you off, check out our review of the cheaper DG20 MIDI digital guitar on page 40.

between a Fender and a Stradivarius. All you need is the urge to make yourself heard - even if it's just you listening.

The fact is that many of today's instruments are superbly suited to catering for musical beginners. But they also offer sufficient power and character to be of interest to more experienced players. If you've had a musical upbringing and want to expand your horizons, you'll be amazed at just how much you can achieve using new technology - and how easy it is to do.

Incomprehensible MIDI

All this is made possible by MIDI - the industry standard Musical Instrument Digital Interface. You've almost certainly heard and read about it, but all too often journalists present MIDI in an incomprehensible fashion. In particular it can be particularly galling, once you've spent a couple of years mastering computerese, to come across a column in a computer magazine that assumes you've mastered musical jargon. You won't have that problem here - one of the main aims of this section will be to make techno-music jargon comprehensible to everyone. The key-word here is fun, not elitism, so if you haven't the faintest idea how to punch a passage into your sequencer, fear not - all will be made clear.

Fun Factor

Many of us at A.C.E. were musical novices when we began looking at the MIDI scene, and we've been staggered at how enjoyable (and affordable) some of the new systems can be. You can plug your MIDI guitar into a keyboard and literally 'strum' the keys; you can set up your micro as a multi-track recording studio; you can even squeeze sound from a digital accordion. Whatever your musical background, MIDI can open up a whole new landscape of interest and enjoyment - and it needn't cost you an arm and a leg either. Stick around, and soon you'll have the neighbours calling out for encores.

MIDI MADE SIMPLE

Attaching a Musical Instrument Digital Interface to your computer opens up a world of possibility. Start here with the first of a series of articles in which we take the muddle out of MIDI and show you how to hand over musical control to your micro.

Home computer users are justifiably sceptical when it comes to 'industry standards'. Although the business world struggles on with a pretence of compatibility using MS-DOS, CP/M and the like, home computer owners have always been strictly confined to software written for their own machine. Communication between micros is fraught with difficulty and frustration. MSX - the only serious attempt at standardisation - foundered in a cess-pool of high prices and poor software.

The amazing thing about MIDI, however, is that the powers-that-be actually seem to have got it right. There may be areas of incompatibility between different MIDI systems, but as a general rule they are positively miniscule compared to the sort of problems you might encounter in micro-to-micro communication. The first, and best thing about MIDI is that it actually works. It's a system you can have confidence in - not just another messy standard where you have to spend all your time learning about what won't work, rather than what does.

In the beginning

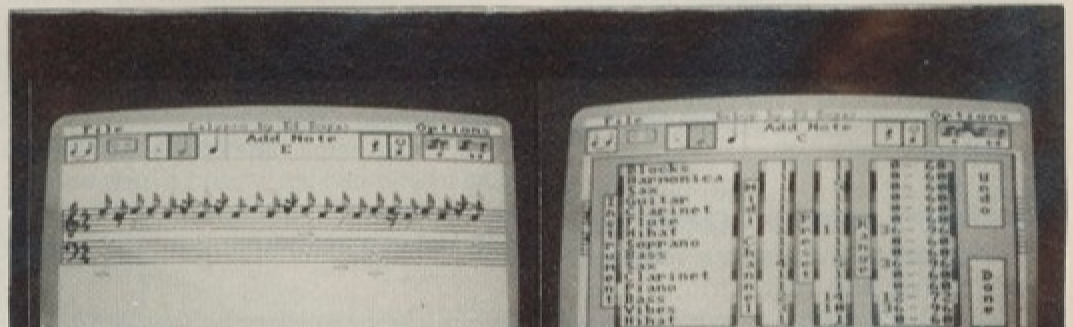
MIDI development was instigated by a synthesiser company called Sequential Circuits (makers of the famous Prophet range of synths) in 1981. The rise of digital instruments, as opposed to the old analogue machines, had given birth to serious interfacing problems. Complex digital signals were now necessary to control the sound generators, as opposed to simple voltage levels that had been used previously. Sequential proposed a 'Universal Synthesiser Interface' that, with support from the rest of the industry, developed into MIDI.

The MIDI spec hasn't changed (apart from one or two minor tweaks) since 1982 and that's another reason why the standard is so well implemented. When you think of the number of revisions that, for example, MS-DOS or CP/M have been through, you can see how MIDI's unchanging structure is not only a tribute to the original people involved, but also contributes towards the system's success and ease of use.

What they came up with was a specification for a simple serial interface – a means of high-speed communication between instruments in which information is sent one bit after another down one line rather than in parallel (where eight or more bits are sent simultaneously down a number of different lines).

The main advantage of this is that you need only a simple lead with easily available 5-pin DIN plugs at both ends. We're not talking about unwieldy ribbon cables and 32-pin diaphragonal Z-plugs available only by mail order from the USA. Electrical connections using MIDI are a doddle that anyone can understand.

Data is transmitted down this line at a rate of 31.25kBaud (or 31250 bits of info per second). Each byte, or combination of bytes, that is transmitted conveys a particular item of musical information - for example, a NOTE



Note well...

Activision's Music Studio for ST, Amiga, C64/128, and PC compatibles is typical of a growing band of music packages that not only allow you to program your computer's sound chip, but give you MIDI facilities as well. The screen on the left allows you to compose and edit scores, while the screen on the right gives you basic control of MIDI data transmission to your keyboard. The ST version allows you to place notes on the stave from the keyboard as well as with the mouse. At around twenty pounds, the package is excellent value, but if you're serious about MIDI you'd probably do better to pay a bit over the odds for a more comprehensive package. Check out our MIDI software reviews in forthcoming issues.

ON byte followed by the number of the note to be played. The enormous speed of the data transfer means that although information is transmitted serially, it can be used to control a number of different instruments 'simultaneously'.

MIDI Channels

Communication with different instruments 'simultaneously' is made possible by MIDI's ability to send data down sixteen different channels. How can we operate sixteen channels when there's only one lead? Simple, all we do is ensure that each message is 'flagged' - i.e. made to incorporate a particular ID number in the range zero to fifteen - and in this way it can be recognised as belonging to one of the sixteen channels, rather confusingly referred to as one to sixteen. The value of this is that MIDI-controlled instruments can usually be programmed to respond only to information tagged with a particular channel number, so you can send 'simultaneous' messages carrying different data to different instruments. Enter the one-man band!

MIDI data

At this stage, in order to really understand the system, we need to look a little more closely at the sort of data MIDI transmits. You'll find it very comprehensive, giving you the ability to communicate almost every aspect of musical performance, including note information, pitchwheel, pressure, tempo, and so on. All this is communicated by a combination of 'status' bytes and 'data' bytes.

Status bytes indicate which particular function is involved, and data bytes provide any additional information that may be required. For example, pressing down on the middle C key of your keyboard would send a status byte for NOTE ON, followed by a data byte specifying middle C. Status bytes are distinguished by having their seventh bit set, so by wielding our immense powers of binary computation, we can see that status bytes belong in the exalted range128-255, whereas data bytes cringe at the bottom end of the scale, in the range 0-127. If you find this confusing, check your computer manual for an explanation of binary numbers and remember that the bits in a byte are numbered from right to left, 0 - 7, and not left to right, 1 - 8!

System messages

However many instruments you've got connected up that you wish to communicate with individually, there are going to be some categories of information that will apply universally. For example, a 'song pointer' that tells everyone where they are in a particular piece of music, or a clock pulse to keep everybody in sync. This type of info is still conveyed by status bytes, but we don't need to tag them with a channel number: so people tend to refer to status bytes as being sub-divided into two categories - SYSTEM information and CHANNEL information.

Next month...

In the October issue of A.C.E. we:
- check out MIDI interfaces - which one should you get for your machine?
- continue our exploration of MIDI by taking the mystery out of channel modes, data formats, and patch boxes;
- carry on the Campaign Against The Jargonophiles by subjecting sequencers, expanders, and thru-boxes to fierce interrogation, thereby forcing them to reveal their true identities; and
- make music!

Getting back to the numbers game, a status byte carrying channel information adopts the format shown in Figure 1.

A status byte carrying system information doesn't need to dedicate its least significant nybble (a nybble is four bits - half a byte) - i.e. bits 0 to 3 - to conveying channel information. To avoid confusion, system bytes have their most significant nybble is set to 1111, which puts them in the range 240 - 255. As soon as your synth spots that, it knows it's receiving system information and therefore should not treat the least significant nybble as a channel number.

Most system bytes - for example STOP or CONTINUE - occur singly without the need for any data bytes to follow them. There are however three exceptions, which are the SONG POSITION POINTER which is followed by the...surprise...song position, the SONG SELECT message which not unnaturally is followed by the number of the song we should all select, and finally the SYSTEM EXCLUSIVE message.

Sysex mania

System exclusive, or SYSEX as the jargonophiles call it, is an excellent example of MIDI flexibility. It's also a nice little phrase to throw around at MIDI dinner parties, as in 'Would you like to see my SYSEX patches for the Watanabe CSD Liquidator Lap-Held?' or 'Don't call me, SYSEX me on channel 01.' Like most jargon terms, it's depressingly easy to understand and really has no snob value at all.

However comprehensive MIDI is, there are bound to be certain features of your instrument that are manufacturer-exclusive. Take for example, the actual process of defining and producing a sound. Yamaha have the hots for FM synthesis, Roland are launching into LA, others brandish PCM...we'll check out these terms next month, by the way...and never shall synth speak unto synth in its own voice. MIDI therefore includes a way of sending brand-specific information to your synth that will enable it to peform certain idiosyncratic functions that would send synths from other manufacturers into fits. In other words, the information that makes a Yamaha sound like a Yamaha and not like a Roland...information that really matters!

The way it works is this - each manufacturer of MIDI equipment is given their own specific MIDI identification number. Sequential Circuits, perhaps not surprisingly, is number 01. Yamaha happens to be number 75. When you want to send some specific information down the line to a certain manufacturer's synth, you send first the status byte for SYSTEM EXCLUSIVE (11110000, or 240) followed by a data byte (0???????) in which the question marks contain the ID number of the manufacturer concerned. You can then follow this second byte with any number of data bytes and it's up to the manufacturers to make sure that their MIDI instruments can make sense of what follows. As soon as the synth receives a data byte which has the format 1???????, i.e. a one in bit seven, it seill know that this is a new statues byte and that the Sysex message has finished! The only limitation on SYSTEM EXCLUSIVE data, therefore, is that it must be in the range 0-127, as must all MIDI data, otherwise the synth will think it's a new status byte.

More buzzwords

As well as system exclusive, you may hear people talking about COMMON system messages and REAL-TIME system messages. COMMON simply indicates messages that are intended for all units connected to the MIDI network. REAL-TIME is slightly different - messages belonging to this category are of the one-byte-only variety but they differ from other single-byte messages by being allowed to interrupt other data without disturbing it.

For example, suppose your synth is busy executing a NOTE ON command. It has just received the NOTE ON status byte, tagged with the right channel number. It is now waiting impatiently for the following data byte which will tell it which note to play. Suddenly, instead of a data byte, it gets another status byte - it's a real-time, single byte, status system message byte and the synth, bubbling with excitement, immediately recognises this obvious fact by scanning the bit pattern. It hurriedly carries out the operation required - usually synchronisation with other instruments by adjusting its

<table>
<tr><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td colspan="4">Function</td><td colspan="4">Channel</td></tr>
<tr><td colspan="4">This half of the byte specifies the MIDI function involved - in this case NOTE ON</td><td colspan="4">We're on channel one - only instruments programmed to receive it will respond</td></tr>
</table>

Fig. 1 MIDI status byte format. Data bytes have bit 7 set to 0.

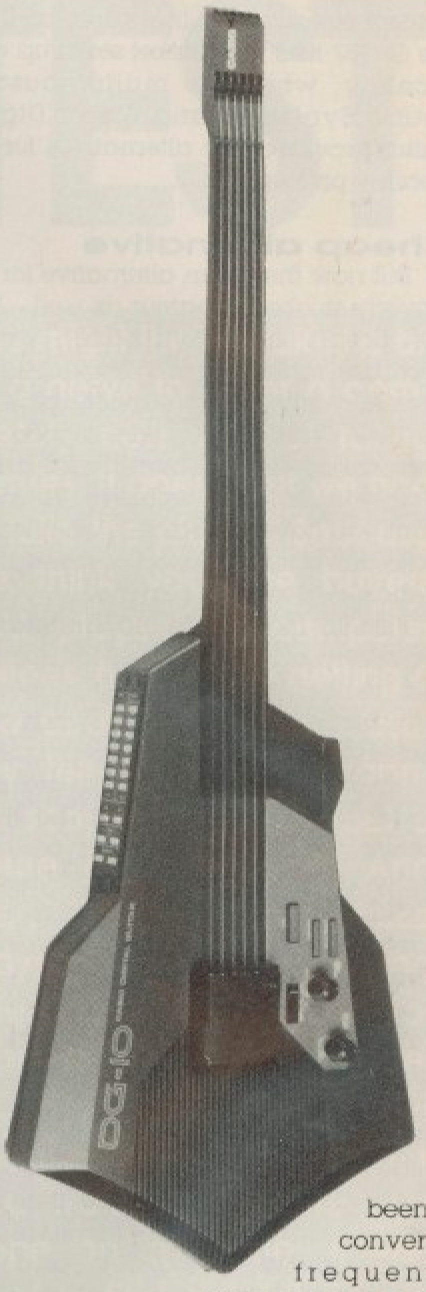
clock - and then settles back to wait for the data byte it was originally expecting. Of course, the real-time message may have been something like STOP or SYSTEM RESET in which case the note will never be played.

Moving on

MIDI is a very simple system to understand, particularly for computer owners to whom much of the computer-jargon which drives musicians wild will be second-nature. If you find things heavy going, don't despair – just re-read this article a couple of times and then catch up on next month's issue. You'll soon find things slipping into place and then suddenly, just when you thought you simply couldn't make the grade, you'll be inviting someone back to your house for a jam, a sing-song, or perhaps a bit of sysex patch swapping for your Watanabe CSD.

SHARPEN YOUR AXE

MIDI means keyboards to most people, but digital techniques are making a big impact on the guitar scene as well. Now Casio have introduced a digital guitar for under three hundred pounds. How does it measure up?



Just how much can you get out of a guitar? Whatever your skill level, there are going to be times when the differences in expression and inflection – dependent on your nimble fingers – aren't going to stop you yearning for the power to create a different kind of sound.

Investing in a conventional electric guitar will offer you rather more possibilities - provided you're willing to invest in an amplifier, a few effects pedals and other gadgets. This instrument has remained virtually unchanged since it was invented in its modern form by Les Paul in the 1940's, but it wasn't until the delvelopment of the electronic music synthesizer by Dr. Bob Moog (pronounced Mogue) in the late '60's and early '70's, that the guitarist's possibilities extended beyond a few wobbly effects and filter treatments.

Synth snags

For practical reasons, however, a piano keyboard was used to control Moog's synth - a keyboard being the easiest place to fit the switch needed to operate any electronic circuit - so when guitarists started to experiment with the synthesizer modules, they came up with a few problems. On the guitar, there's no switch to close when you want to play a note; the vibrating metal string sets up magnetic disturbances in the pickup which are increased by its steel coil and amplified externally. The first 'guitar synthesizers' - such as the EMS Synthi Hi-Fi used by The Rolling Stones, Groundhogs, Ashra and other bands - were really glorified effects units which would shift the pitch of the guitar sound, distort it, or add various repetitive effects. You weren't actually controlling a music synthesizer with a guitar, just making a guitar sound a bit like a synthesizer.

Guitar synths

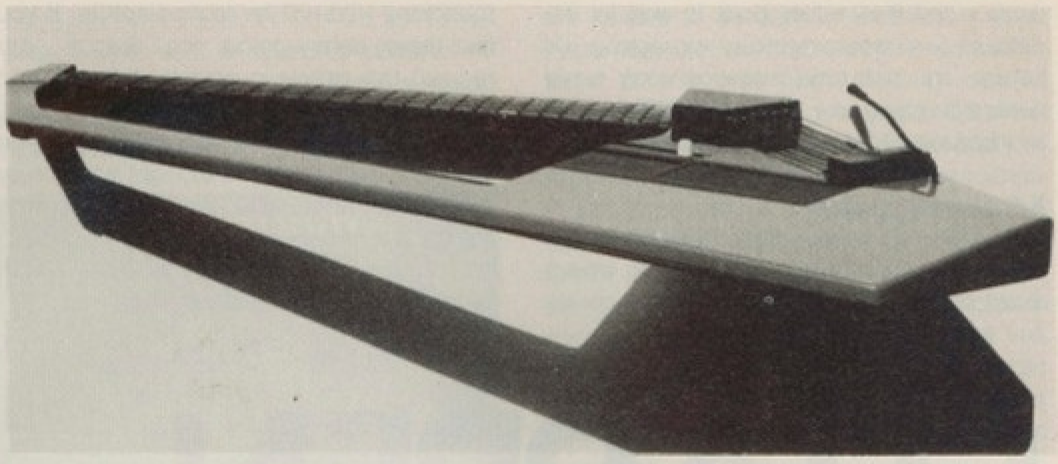
To get technical for a moment (not too technical!), the problem of guitar synthesis has always been to convert a frequency (the speed at which the guitar string is vibrating) to a voltage (which can determine the pitch at which a synthesizer plays). Early guitar synths such as the Hi-Fi, the Vox Organ Guitar and others didn't even attempt to do this - the first to do so was the 360 Systems Guitar synth, which used a six-channel frequency-to-voltage converting pickup and stuffed the output into six MiniMoog synthesizers. This was an expensive way of going about things, but at the time, the machine's first user John McLaughlin was earning rather a lot of money with the Mahavishhu Orchestra.

Perhaps inevitably, the answer came from the Japanese, in the form of Roland's own guitar, equipped with a special pickup, which was a disadvantage for those who'd been using a favourite guitar for the last ten years. Still, you had to take what was available, and guitarists such as Steve Hackett made the most of the Roland CR505's possiblilites.

Since that time, Roland have launched three more guitar synths, culminating with the fully programmable GR707, which stores many alternative sounds in its floor-standing synth unit and also gives an output in MIDI code, which can control any other modern synth. Although

YAMAHA
YAMAHA

All strapped up
The ease and convenieince of shoulder-strung instruments lead Yamaha to design the SHS10. This little number packs a lot of features into a unit so light you can't help feeling there's nothing inside it – slightly disconcerting at first for someone used to toting a heavier load. Don't be deceived however, the SHS10 boasts FM digital voices and rhythms, chord sequencer, pitch bend wheel, MIDI, one hand melody playing and more for a price yet to be confirmed, but almost certain to be £149.00 inc VAT. On general release about the time you read this...



Lazer revolution

Born out of an industrial design engineering course at Leeds Polytechnic, the Lazer guitar's revolutionary design features a stringless neck equipped with sensitive contact switches. A.C.E. checked out a prototype at the British Musical Fair and found the switch action remarkably sensitive, though it has yet to be seen how the guitar will perform in practise.

Designer Alasdair Bryce, now working under contract for Elka-Orla(UK) Ltd, claims "no delay/mis-tracking problems associated with conventional systems. Many unexpected subtleties are also featured including provisions for most guitar techniques such as hammer-ons, pull-offs, arpeggios, slides, and string damping, as well as typical chord techniques. Transposition and channel-splitting are also possible." Certainly the unit looks impressive and handles well - should be in the shops late October for around £299.00. Watch this space...

costing a couple of thousand pounds, the GR707 had the market sewn up until recently, when the multi-thousand pound Synthaxe and Stepp Digital Guitar provided two alternatives for the wealthy professional.

Cheap alternative

But now there's an alternative for the proverty-stricken amateur as well. Like the Stepp and Synthaxe, which abandon the use of conventional tensioned strings and magnetic pickups, the new Casio DG-20 takes a good few steps away from conventional guitar design in order to achieve its aims. What you have to decide is whether the gains are worth the effort of getting into a whole new style of playing...

First up, the DG-20's made of plastic - not a very auspicious start for a guitar and, incidentally, the thing makes no useful noise at all until you switch it on (battery or mains transformer options are provided). The strings are also made of plastic - nylon to be more precise - and aren't under tension, simply because the DG-20 isn't looking at their speed of vibration to figure out which note to play, so they don't need to be.

Playing on six floppy plastic strings with equal gauge and equal spacing doesn't come naturally to the experienced or inexperienced guitarist, but at least you can form chord shapes in the normal way and strum on the strings. However, you'll find that frets and fingerboard are a little weird - they're made of rubber, and the fingerboard has a series of pressure sensors under it. Pluck and hold a string down onto the fingerboard and you'll get a new note - just like that.

This means that one or two guitar techniques work as normal, and one or two don't. For instance, you can "hammer on" to a note (play one note and bring your finger down higher up the string without actually plucking it again), but you can't pull the string up or down to bend a note, because the sensors don't react to the exact placing of your finger. You can slide up the fingerboard, you can't go out of tune, and you'll probably never snap a string.

Sounding it out...

But what sort of sounds do you get? Well, there are 20 available using ten membrane buttons on the top edge of the guitar - four acoustic guitars, two electric guitars, distortion, various percussive glockenspiels, harps and so on, and a couple of typically Japanese noises. They're not too bad - about on the level of a cheap keyboard synthesizer - but the facilities which really make the DG-20 unusual are the PCM sampled accompaniments, arranged into 12 drum patterns with adjustable tempo and selectable fills.

You can set the drum section to start playing automatically when you hit a note, and there's a little rubber start/stop button next to the Main Volume controls. You'll also find four rubber pads which allow you to play the Snare, Hi and Lo Tom and Cymbal sounds manually - useful for little intros and fills rather than for frantic drum solos.

In terms of expression, that's about it. You can set the guitar to Solo so it'll only play one note at a time, and can choose Sustain/Reverb which allows the different sounds to die away rather more slowly. Some sounds - such as Chorus - will hold on for as long as you hold the strings down, but there is a Mute button which will kill any unwanted notes.

FX BOX

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What the guitar lacks is any indication of the current tempo, and any indication of what sound you've selected after you've pushed the membrane button.

On the side control panel of the guitar you'll find a tuning control, headphone and amplifier outputs, a 9V DC power input, a footswitch input for Sustain, and the MIDI Out socket. This allows you to play any other synth module from the guitar, which of course could give you access to better sounds. It won't do anything for the guitars's tracking though - you'll still get the occasional unwanted note and wobble, particularly before you get used to the fact that you can't bend strings without getting unpleasant results. In fact there's no way either to bend pitch (although you can Transpose into a completely different key) or to add vibrato, which does deprive the guitarist of rather a lot of his technique.

If you're not interested in MIDI, there's a cheaper DG10 model which has 12 onboard sounds but no MIDI ouput. This sells at £225, while the DG-20 sells at £279.

Upgrade options

If you want something a little more professional, Casio have also launched the stylish MG500 and Strat-like MG510 models (both £549 inc VAT) – more conventional guitars which have pickups with MIDI outputs, the ability to select a new synth sound from the fretboard, and a synth/guitar volume mix control. Obviously these have to be plugged into some kind of synth to have much effect - but the possibilities are endless now, with the Yamaha FB01 module at #299 or Yamaha's TX81Z and Roland's new MT-32 at #450 or so all offering good value. All these units work in "MIDI Mono Mode", which means every guitar string can control a different sound - pretty powerful stuff.

Meanwhile if you're into guitars but want some synthy sounds, are busking and want a novelty, or are looking for an original Christmas present, the DG-20 could be the one for you. Certainly it's going to mark only the start of Casio's excursion into guitar synthesis.

Mark Jenkins

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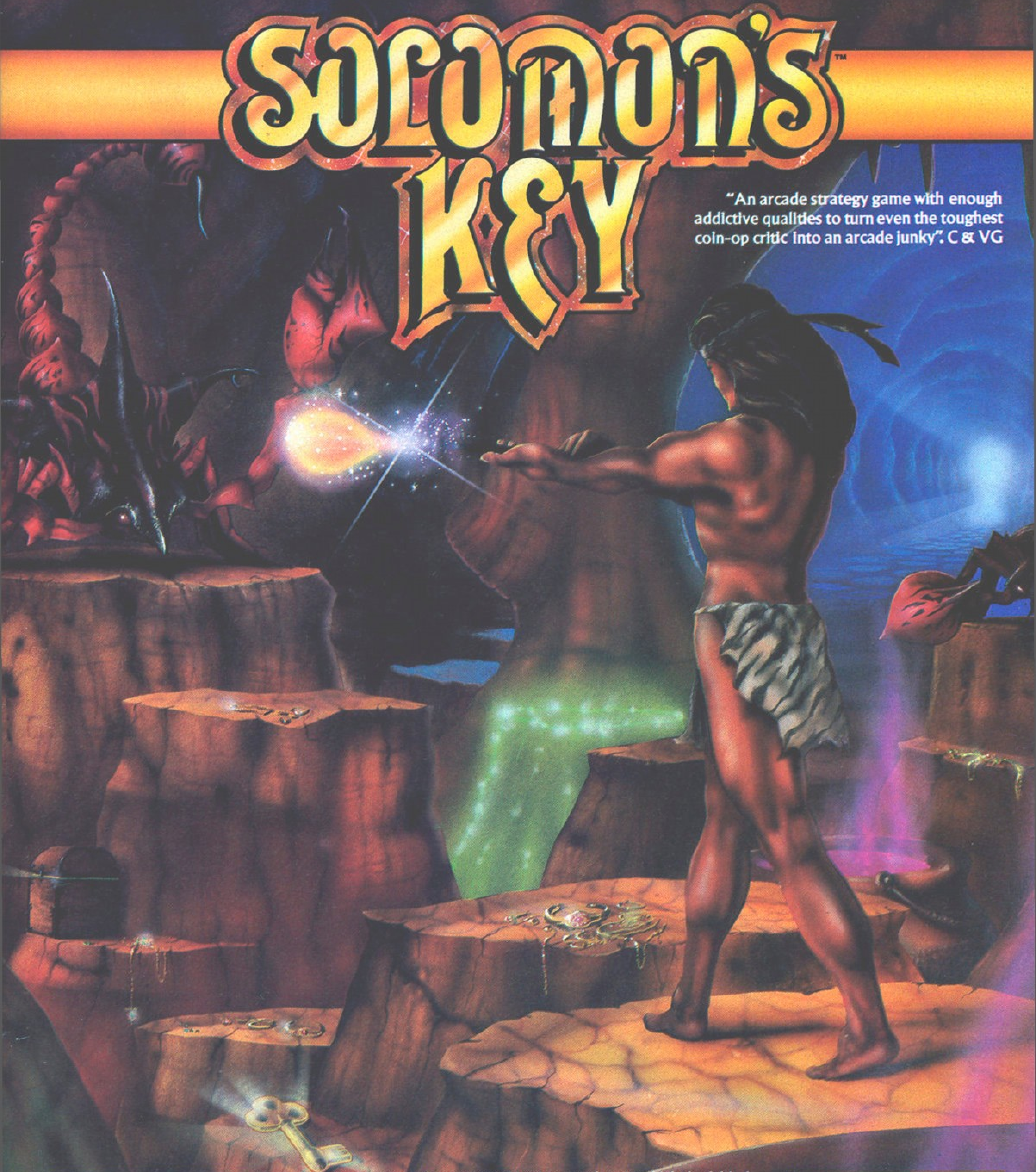

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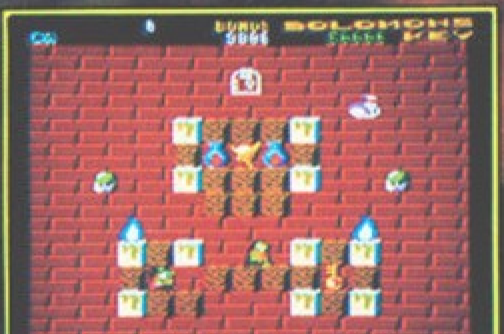

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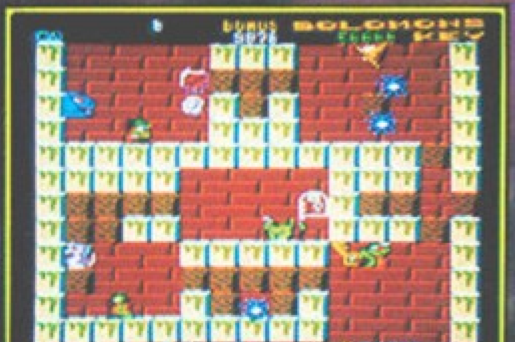

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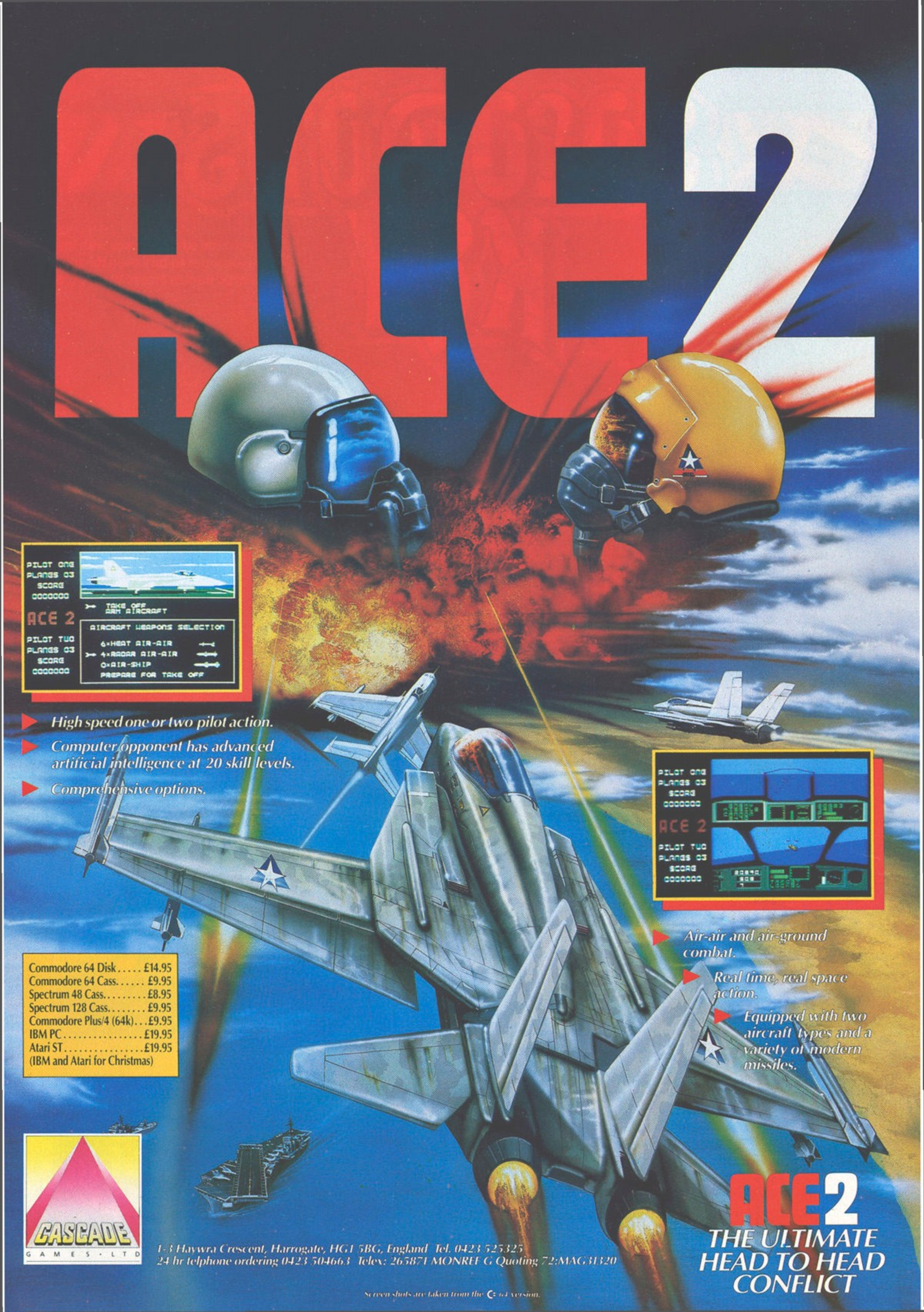

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ACE 2
THE ULTIMATE
HEAD TO HEAD
CONFLICT

Screen shots are taken from the C= 64 version.

SCREEN TEST

You might think it takes a bit of a nerve to offer a completely new way of rating games. It does – but we had to take the plunge. Because we think you, the buyers and players of computer games, have been getting a raw deal. Sure, ratings usually tell you how the graphics score. Yes, they'll put a figure on the sound. And then there are all those Playabilities and Lasting Interests and Value for Moneys and umpteen other labels that just don't give you the info you need. So, if you want to get the real dope on a game; if you want to find out if it gets to you right from the start; if it exercises the old grey matter; and, most important of all, if you'll still be playing it next week, month or year – get a load of our exciting new system.

The ACE System

Each review starts with the name of the game reviewed, the supplier and the version we've tested for the main review section. If other versions are available for review at the same time then you'll find information on them in separate boxes. Where two versions differ substantially then the box will be quite long; where the game is essentially the same the comment will be brief and to the point.

Each review also has a Release Box, giving information on prices and when other versions are expected to appear. We can only pass on what the software houses tell us, so OUT NOW means we've actually seen the game and that it will be in the shops; IMMINENT means that the software house is confident it *should* be on sale by the time that issue of ACE is on the street – but you know as well as we do tht these things are never certain; NOV 87 means that that's when the software house is expecting the version to be available. We will, of course, be keeping you updated on all release news.

Each and every game reviewed in Screen Test is seen by all 5 members of the team, although the review is written by one person. The ACE Rating isour collective opinion; but if a game provokes a violent difference of opinion then we'll allow space for a dissenting voice to be heard. Games are tested thoroughly, and our opinion is influenced only by the good or bad qualities of the game itself. Trust us – between us we've seen more games than Smith's had hot dinners. You can rely on our judgement.

The PIC chart explained

A new system takes a bit of getting used to, so we've cooked up some ratings for a fictional game, *Standard Issue Scrolling Coin-Op Conversion* to help you along. You know the kind of thing; good scrolling, fast and noisy action, picking up extra weapons. Now check out the ACE treatment this game gets...

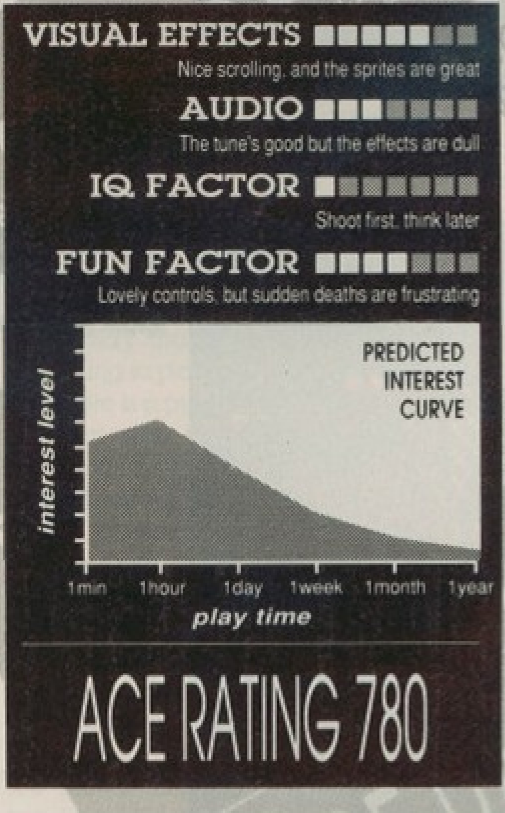
VISUAL: What does the game look like? The more of these squares that have turned white, the higher the game's visual score is. Grey squares mean jerky animation, flickering sprites, colour clashes or poor attention to detail. Check out Quedex (p44) and Sidewalk (p46) for the kind of game that gets lots of the white ones.

AUDIO: How does the game sound? Are the in-game effects mighty booms and piercing screeches, or just puny blips? Do you want an LP of the title music, or would you prefer a pair of earplugs? Does that digitised speech say "Missile launched" or is it more like "Ngissiye lauged"? Sound makes a big difference - just look at Impact (p58) for example. There's 200K of digitised effects there!

IQ FACTOR: How much thought does the game demand? Is it an epic of strategic planning, or a mindless shoot-em-up? A low rating here doesn't mean the game's bad - but don't expect it to tax your grey matter too much. Brainiest game this issue is Xor (p52) with a perfect 7 for IQ.

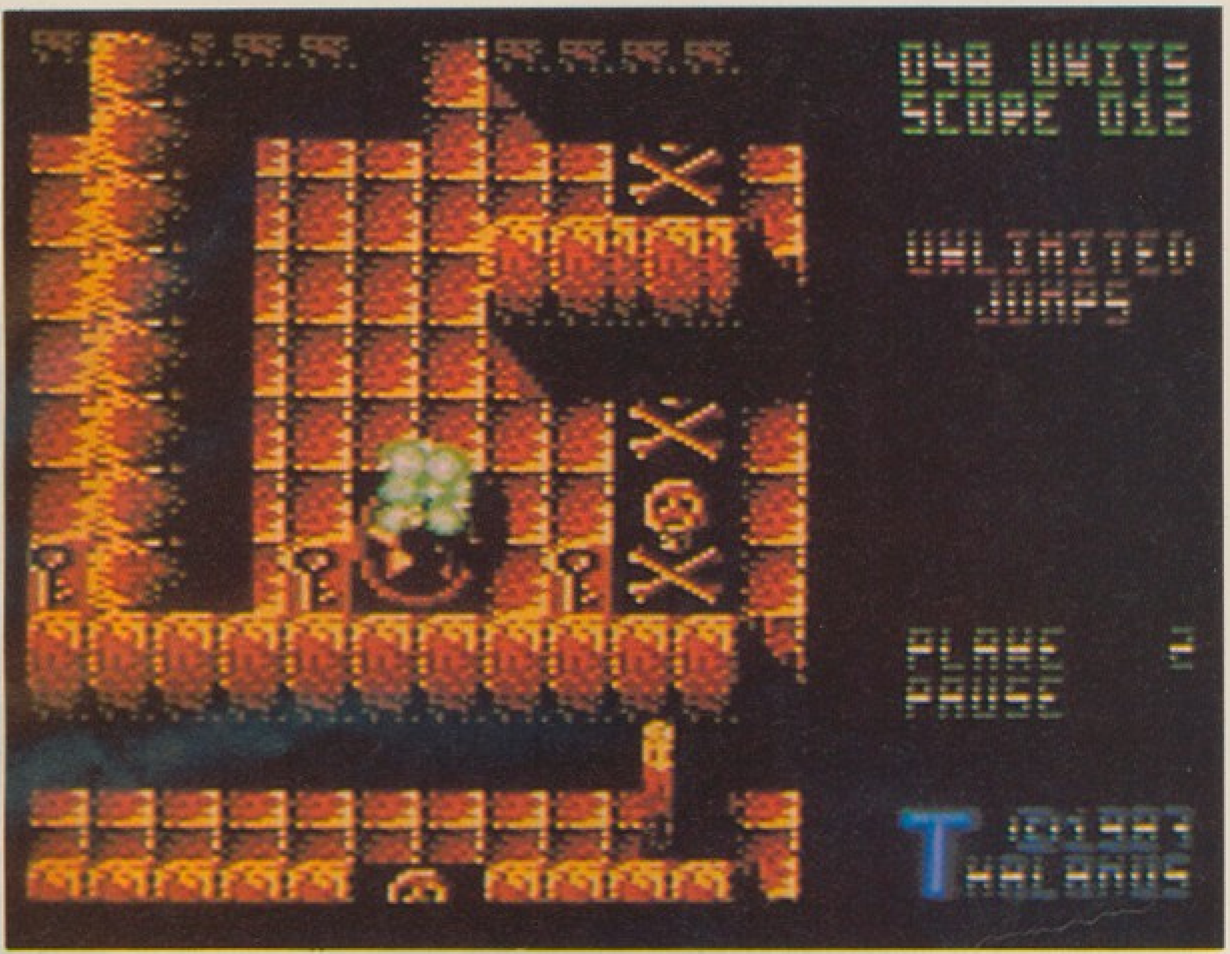
FUN FACTOR: Is the game instantly playable? Does it offer immediate, compulsive pleasure – or does it take long-term commitment to get anything out of it? Expect a high fun factor for coin-op conversions – Bubble Bobble (p56) is the top scorer this issue – and a low one for games based on theology books.

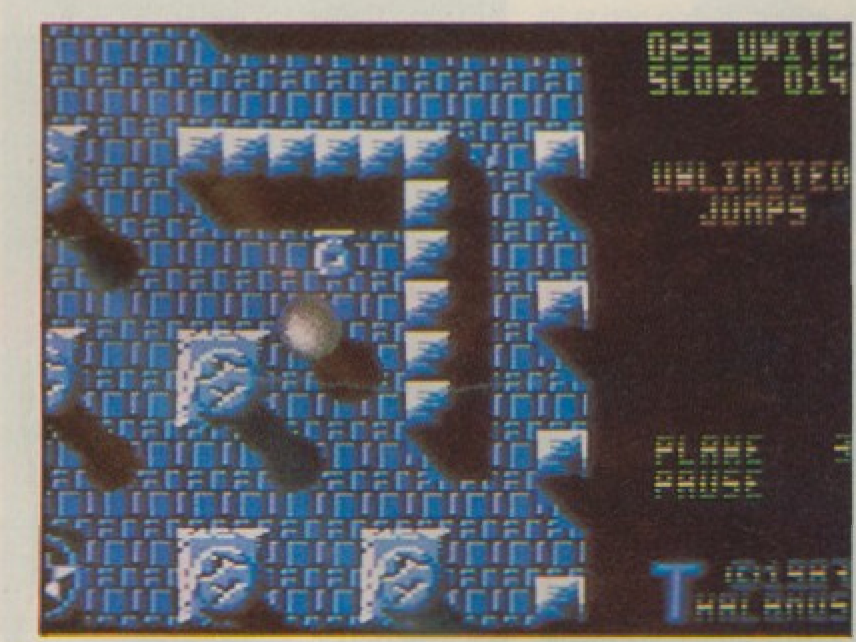
The IQ Factor and Fun Factor are used in conjunction with the P.I.C. curve to tell you what TYPE of interest a game offers.



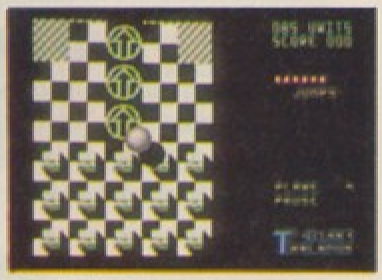
PREDICTED INTEREST CURVE, or PIC for short. One look will give an instant idea of the game in question. The higher the curve, the more of your attention the game holds at any one time: the top of the box means total obsession, while the bottom means complete and utter indifference. In our fictional shoot-em-up here those graphics mean you'll be pretty impressed after a minute. You're even keener after an hour, thanks to those nice controls. But frustration at those sudden deaths has taken the edge off this by the end of the first day, and after a week the lack of depth is starting to show as well. By a month you've seen just about everything the game has to offer and want a new challenge, but the playability and great graphics mean you'll still be loading it up occasionally in a year's time.

Plane 2: A maze, with the goal hidden away behind a locked door. You need to collect the keys lying around and find a route through the plane's confusing teleport system - the ball is actually in the process of dematerialising, caught by the camera in mid teleport. Roll over onto one of the death's heads to the right or above, and you'd see it dematerialise permanently!

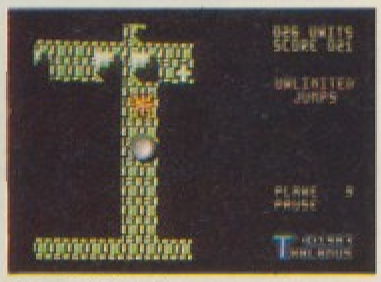

048 UNITS
SCORE 012
UNLIMITED JUMPS
PLANE 2
PAUSE
©1987
THALAMUS


023 UNITS
SCORE 014
UNLIMITED JUMPS
PLANE
PAUSE
©1987
THALAMUS

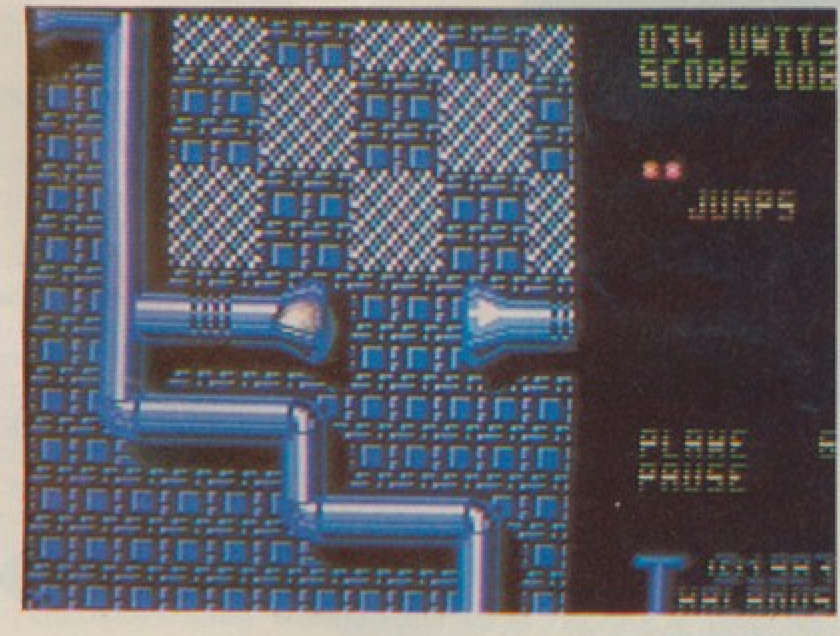
Plane 6: Collecting hidden question marks switches various features on and off. One sets the plane's suction-tube system in motion: the ball's pictured here travelling through one part of it. Be careful though - you can get sucked onto a death's head!



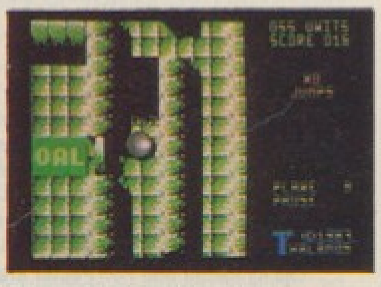
Plane 4: A straight race from starting line to goal, but your path is strewn with columns. You lose five seconds if you hit a column, and the electric seas sap your time too.


UNLIMITED JUMPS
PLANE 9
PAUSE

Plane 9: Pick up the crosses and your ball gets extra power. Destroy those columns by smashing into them, picking up another cross every time your ball turns grey again. Smash all the columns, and the goal appears.


034 UNITS
SCORE 008
JUMPS
PLANE
PAUSE
©1987
THALAMUS

Plane 3: The goal only appears when you've collected four hidden amulets. It's a tricky plane to master, with lots of hidden walls and another nasty teleport system to disentangle.


GOAL
JUMPS
PLANE
PAUSE

Plane 8: the floor collapses along a set route, so you'll have some real fun trying to find a path to goal that stays open long enough. There are keys to collect too.

QUEDEX

SUPPLIER **THALAMUS** VERSION TESTED **C64**

PRONOUNCED 'Cue-dex' rather than 'Kweddex', this new Thalamus title offers an impressive variety of gameplay styles along with some very hot graphics. *Quedex* is all about dexterity. Steering your metallic ball around ten different game areas or 'planes', you'll need precision, sharp reflexes and a first-rate joystick.

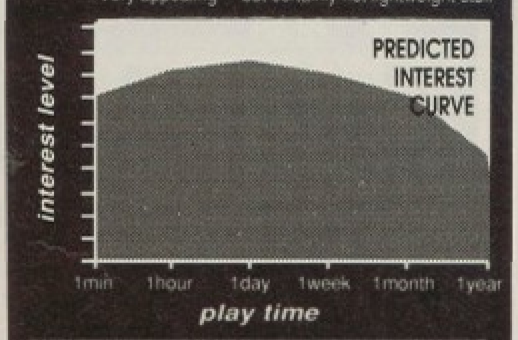
Each plane has a starting point and a 'GOAL'. Get the ball from one to the other and you've completed the plane. The aim of the game is to complete all ten planes within a given time limit, but tackling them in any order you like.

VISUAL EFFECT ■■■■■▨▨
Very attractive graphics indeed

AUDIO ■■■■■▨▨
May be even better on the production version

IQ FACTOR ■■■■■▨▨
Definitely needs a lot of thought

FUN FACTOR ■■■■▨▨▨
Very appealing – but certainly not lightweight stuff



ACE RATING 934

This freedom over the order in which you take the planes gives *Quedex* an unusual edge - there's even a 'game designer' option to change the default order in which Quedex offers you planes to tackle - but the real killer is that each plane involves a completely different style of gameplay. Your aim is always to reach the goal, but often this can't be reached or doesn't even come into existence until you've completed a series of other tasks.

There are common elements to the different planes: game features like teleports, lifts and lethal obstacles always look the same. The game controls – up, down, left, right and jump – are constant, as is the scrolling overhead view.

The biggest common link between the different planes is time. Every plane has a time allowance, and any unused time gets carried over to the next section. Once you've progressed a bit, the game's time allocation gives things a strategic edge: do a few planes you're used to first, and you'll have more time to explore a new plane later.

If at any point you find yourself running short of time on a plane or simply lose patience with it, you can go off and try your luck on another. Build up a bit more time or enthusiasm and you can come back for another go later on. Again, this freedom over gameplay makes *Quedex* unusual and interesting to play.

There is a plane that you can only take a crack at once though, and there's a good reason for the restriction - it's a bonus plane, packed with extra time. You'll need it; there's a lot of trial-and-error learning to be done on some of them. Often, essential objects can be seen only when the ball gets very close to them. Invisible barriers make things even more confusing, as do the tortuous networks of teleport pads.

There's also the dreaded 'electric sea' to sap your remaining time. Roll onto this and see your precious seconds evaporate – or trundle over a death's head floor symbol and die instantly. Either way means end of game, so a little care really is essential.

It's not just hazards like this that demand dexterity. There are gaps to jump on some planes, but even clearing them may not be enough. Jumping from a high platform to a low one can cost you a time penalty if the height difference is too great. Lifts can offer a painless way down, but careful route-planning also helps.

Release box

C64/128	£9.99 cs £14.99 dk	OUT NOW

Quedex is a huge challenge. Solve a few planes, string them together in your chosen order and you start hitting some of the game's nastier surprises. Suffice it to say there's plenty here to keep you rolling, jumping and teleporting into the wee small hours. Even when you've solved the game there's always a faster time to aim for, of course.

On the graphics front, *Quedex* really hits the spot. Great use of colour and a very nice metallic sheen on the ball make some planes startlingly good to look at. As for sound, the music's impressive and the effects, though not quite complete on the review copy were well up to scratch. AW

SIDEWALK

SUPPLIER **INFOGRAMES** VERSION TESTED **ATARI ST**

YOU are in deep trouble, mon vieux. Your motorbike has been stolen dismembered, and its parts distributed about town. At 10 p.m. you need it to take your girlfriend to a Band Aid concert. if you don't have it she'll go with that slimy creep John. On top of that, you still haven't bought any tickets – and getting those can be something of a problem.

In order to recover your bike you must wander the streets of a seedy French town 'interacting' with its various inhabitants. The screen is displayed in monochrome and you may move forward into, backwards out of, or left or right against the very detailed street-scene backdrops. These are very well drawn and give the game that cartoon/comic look typical of much French software. There are also two windows at the bottom of the screen, the first showing the bike parts you have so far collected and the second displaying the other objects you are carrying, such as money and concert tickets.

Interaction with the characters you meet is rather limited. You are faced with a picture of the individual and three options: run past them, talk to them, or beat them up. If they are potentially violent you are also told their size and strength.

If you choose to talk you are presented with three or four questions you can ask, one or more of which may produce some useful result. There are some people you must talk to in order to complete the game, but for the most part the beat'em up option is the most useful and achieves the best results. (It's also the most enjoyable). In a fight your opponent appears on the screen with you and starts to lay in to you with whatever weapon he is carrying. Although these include such nasty pieces of hardware as a bill-hook and a flail your vigorous punches, kicks and head-butts will usually gain the upper hand. A nice touch is the way your strengths are represented by filled pint glasses whose contents disappear as you are hit, and the way that once a fight is over you can replenish your energy by buying a drink at the bar.

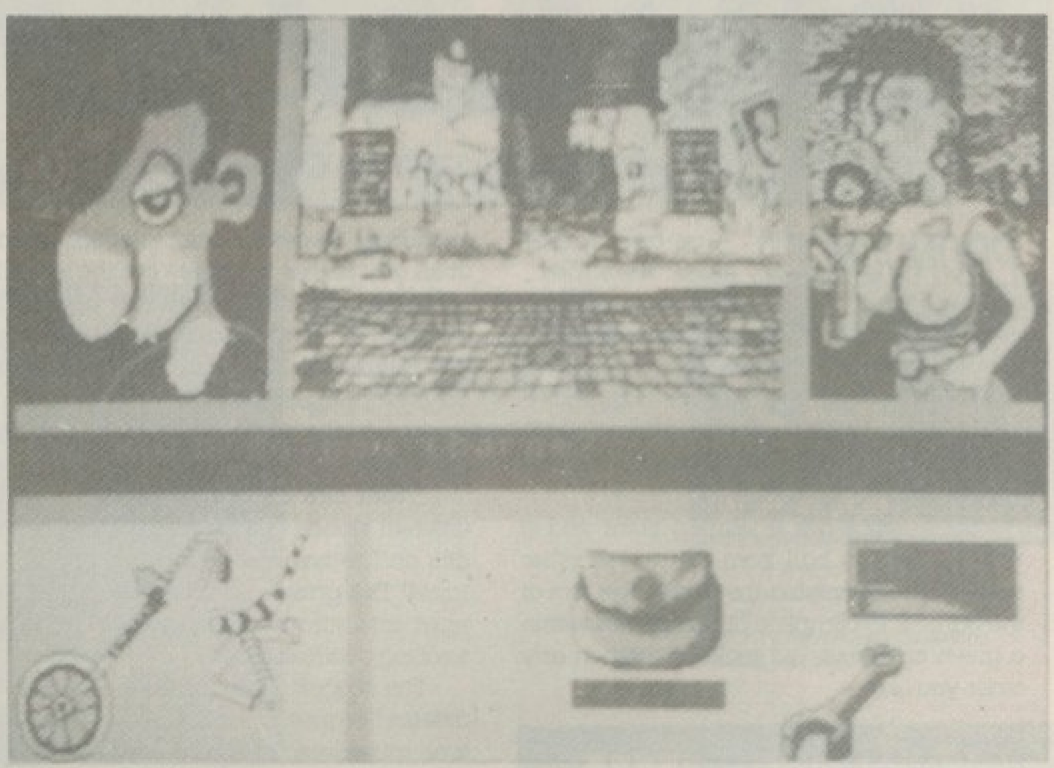
Despite the very limited time the game gives you to complete your task the actual problem-solving, bike and ticket-collecting part is so easy that within a few goes you'll know how to collect almost everything you need. The only problem is getting to the right places to collect it and this is where the game becomes very frustrating. While on a single screen the game's movement system works very well, but as soon as you move from location to location the situation becomes very confusing, the controls causing you to lose all sense of direction and rendering the game almost unmappable.

Sidewalk's graphics are its main attraction, and they're certainly worth a look. The caricatures of the various characters you meet - The Crazy Guitarist, the sumo wrestler, the girl in the record store – are all superbly drawn. Unfortunately the game seems to lack the logic the French are reputed to have so much of: buy one ticket in one place, two more in another and you'll still have only two tickets afterwards!

Granted it's all very original, interesting stuff and the presentation's very stylish, but problems like these do undermine the game's realism. Add in the frustration of trying to find your way around and you could be left a bit less than satisfied. It's a great game to look at though, and the fact that you're not trying to get rich or save the galaxy must count for something. **DP**

Release Box		
Atari ST	£19.95	IMMINENT

There's no need to be rude!



VISUAL EFFECTS ■■■■■■▨

Black and white and good all over

AUDIO ■■■▨▨▨▨

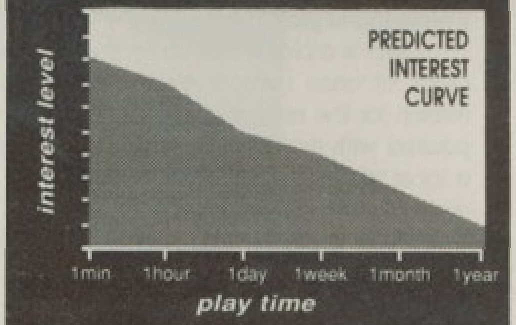
Nice tunes, poor effects

IQ FACTOR ■■■▨▨▨▨

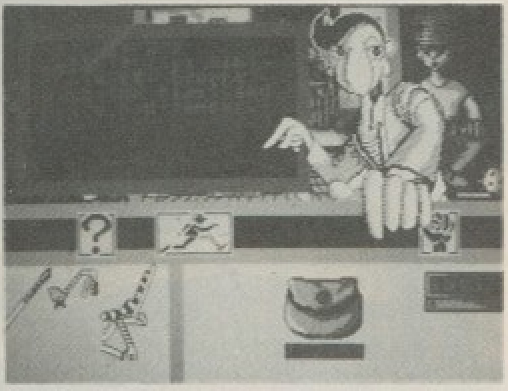
Will require some pondering

FUN FACTOR ■■■■■▨▨

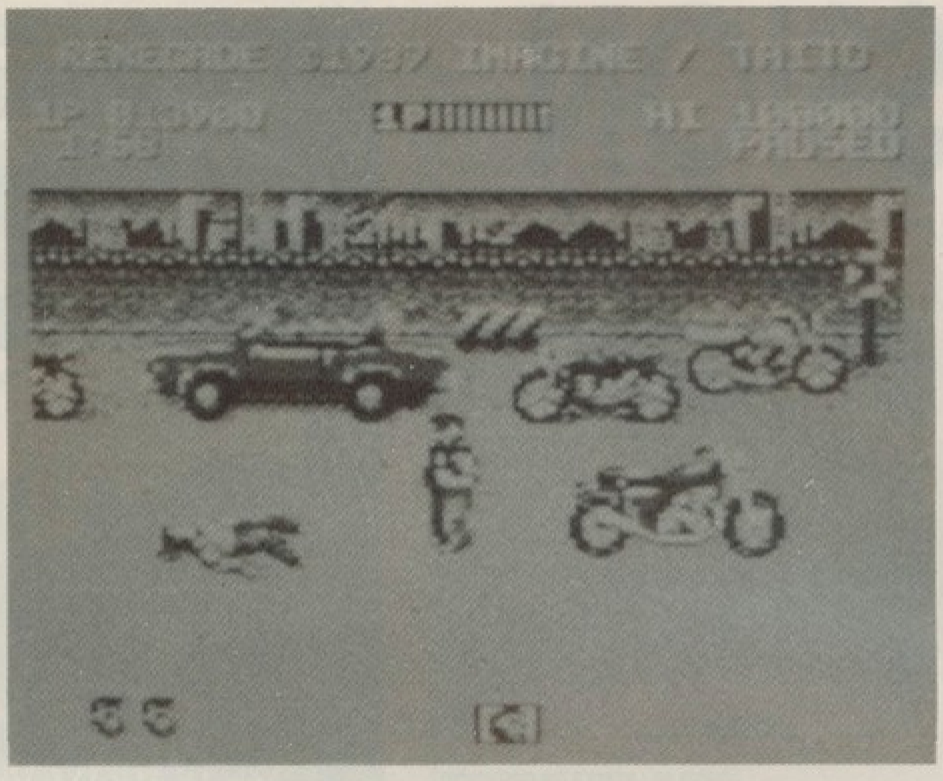
Very engaging – but it just doesn't last



ACE RATING 708

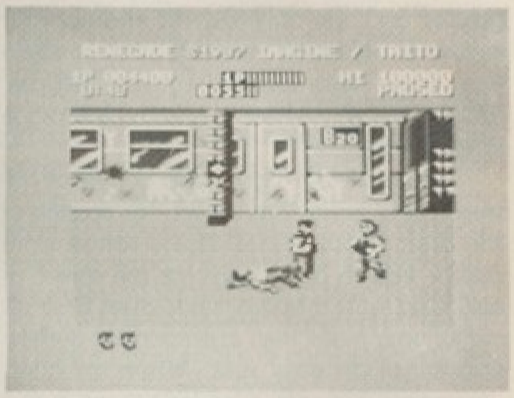


A tough customer - time to run?



Another biker bites the dust.

Mayhem on the metro!



RENEGADE

SUPPLIER **IMAGINE** VERSION TESTED **AMSTRAD**

PICTURE the scene. It's late evening in a tough city and you're on your way to meet your girl. As your train pulls into the graffiti-covered subway station you're attacked by a gang of vicious muggers. There's no running away from these jerks so you've gotta do what a man's gotta do – fight. You've also gotta meet your girl, so you only have a short time to polish off the nasty gang.

Your mission in this action-packed game from Imagine is to survive a total of five gangs each within a time limit so that you can make that date. There are five scenarios, each loaded separately from the cassette. You start off in the tube station and then – assuming you're still alive –move on to the pier stage, where you have to fend off a gang of motorcyclists who attack on bikes as well as on foot. Survive the bikers and you have a female gang to contend with. Man, these dolls are mean , coming at ya with clubs and whips. No sign of safety yet, though, because the next gang are all razor-wielding maniacs.

Finally you've got to deal with a gang who turn up where you had arranged to meet your girl. This time the gang's boss takes potshots at you with his revolver. Kill these baddies and you will have proven that love conquers all by being in time for your date . Whether you have any energy left to have fun is another matter. Anyway you only get a short time with your girl because you have to go through the whole nightmare again – with even tougher opponents.

Renegade's gameplay is pretty tough stuff . You can use the keys or a combination of joystick and keys. You have to move your character left, right, up and down and you also have three separate attack keys - attack left, attack right and jump . Mastering your moves takes a little while but once you're used to it you can pull off some pretty neat tricks – such as grabbing the ruffians by the lapels and nutting them. Each gang has a boss and this is the guy (or girl) you're after. The boss will only join in when you've despatched enough of his (her) henchmen. Off the boss and his (her) head is displayed at the bottom of the screen as a trophy.

Release Box

Spectrum	£7.95 cs	IMMINENT
Amstrad	£8.95 cs £14.95 dk	IMMINENT
C64/128	£8.95 cs £12.95 dk	IMMINENT

You start the game with three lives, a horizontal bar at the top of the screen displaying your stamina level for your current life. Each hit you take reduces your stamina until you run out of luck and get creamed. On the fourth and fifth levels one touch from the razor-wielding mobsters results in death...

The game has wonderful blood-thirsty graphics; knock a thug down enough times and his head splits open oozing blood all over the sidewalk. It might not be to everyone's taste, but it works very well in the context of the game. Superb animation really gives this game an arcade feel and the backgrounds are all stunningly detailed with plenty of colour. The game area is on the small side though, typically being only about four or five screens long. The scrolling is smooth and fast, enhancing the game a great deal.

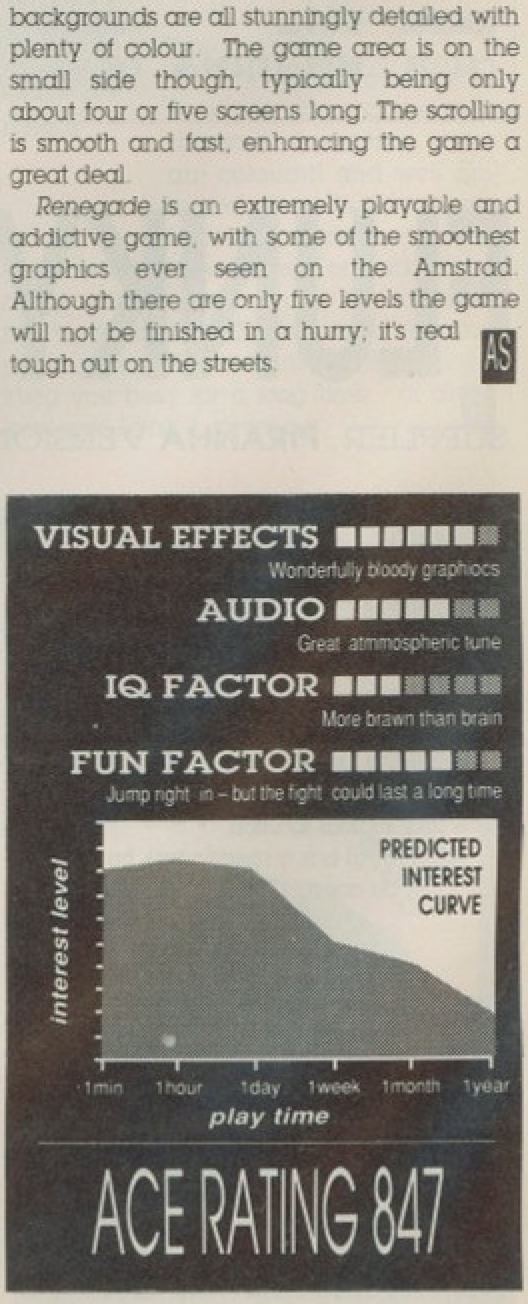
Renegade is an extremely playable and addictive game, with some of the smoothest graphics ever seen on the Amstrad. Although there are only five levels the game will not be finished in a hurry; it's real tough out on the streets. AS

VISUAL EFFECTS ■■■■■■▨
Wonderfully bloody graphiocs

AUDIO ■■■■■▨▨
Great atmmospheric tune

IQ FACTOR ■■■▨▨▨▨
More brawn than brain

FUN FACTOR ■■■■■▨▨
Jump right in – but the fight could last a long time



ACE RATING 847

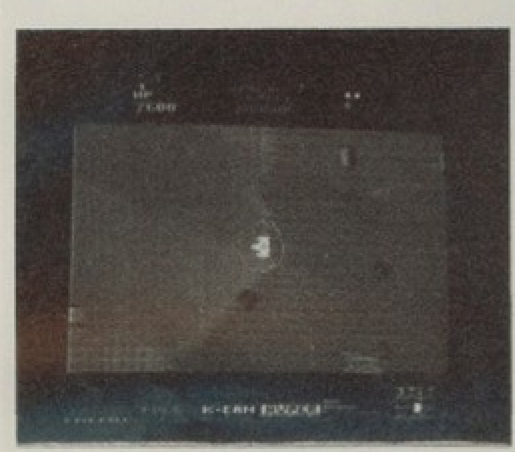
LAST MISSION

SUPPLIER **US GOLD** VERSION TESTED **C64**

IN this eight-way scrolling arcade game you have been driven from your home galaxy and the only way of ending your exile is to defeat an invading force of aliens who have been tormenting your people. Who it was who exiled you in the first place is not made clear.

At the bottom right-hand corner of the screen is a radar that shows the position of the alien placements. These range from missile silos to huge guns; as the screen is also filled with a host of small alien craft all out for your blood then attempting to destroy one is not an easy task. When an alien placement explodes it leaves behind a pod which, when you pick it up, gives your ship an extra weapon or shield. Shields make you invulnerable for a limited time and weapons range from a fast laser to a potent device that shoots for a short distance in all eight directions.

Release Box		
Spectrum	£8.99 cs	IMMINENT
C64/128	£9.99 cs £14.99 dk	OUT NOW



Shields on - where's the mothership?

The main problem in the game is surviving long enough to shoot all the small aliens on a level. A bar at the bottom of the screen shows how many there are left; even when blasting to the best of your ability it still decreases very slowly. Once the bar has depleted any remaining craft vanish and it's time to face the mothership.

The Mothership is a strange-lookin contraption that has energy rays pulsing out of each of its four sides, which decrease in length as you blast at it. The ship is no push-over as it continually shoots lasers at you.. Once all the energy rays are gone the mothership explodes and you move on to the next level for more of the same.

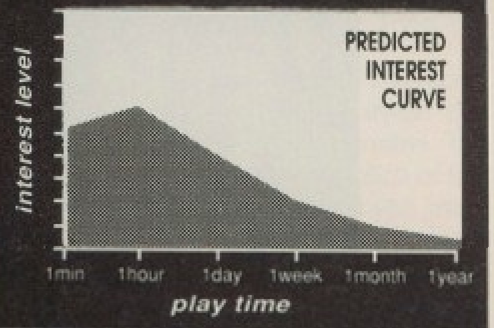
On the whole *Last Mission* is a tolerable game, but it doesn't really have anything to make it stand out from the competition. AS

VISUAL EFFECTS ■■■▨▨▨▨
Shame about the state of your ship

AUDIO ■■■▨▨▨▨
Nice tune but nothing special

IQ FACTOR ■■▨▨▨▨▨
All action and not too much brainwork.

FUN FACTOR ■■■▨▨▨▨
Not enough to grab you



ACE RATING 531

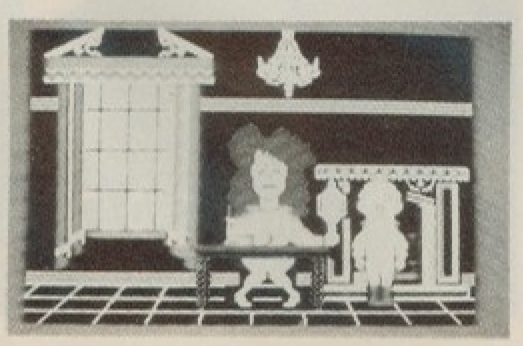
FLUNKY

SUPPLIER **PIRANHA** VERSION TESTED **SPECTRUM**

FLUNKY is a derogatory term for a liveried servant, cook, waiter etc. In this game you play a be-wigged and servile flunky at Buckingham Palace whose job is to wait on assorted royals and complete the various loopy tasks they set for you. *Flunky* is written by Don *Trap Door* Priestley; the game's authorship shows in its crazy puzzles, which often don't seem to have any logical solution.

Each royal has a specific task for you that must be completed within a time limit of approximately 500 seconds. Prince Andrew is taking a bath and wants a boat to play with; Fergie wants some freckles; Di wants a wig (for some reason she's bald); Charles is on his rocking horse and wants his polo balls; the Queen wants her Corgis.

You rang, Ma'am?



Release Box		
Spectrum	£9.95 cs	IMMINENT
Amstrad	£9.95 cs £14.95 dk	IMMINENT
C64/128	£9.95 cs £14.95 dk	IMMINENT

Fail to complete the task within the time limit and the guard will kill you. Offering the wrong object will have the same effect.

Graphics are very distinctive, with big bold sprites and little or no attribute clash. Your actual view of each room is through a window, the size of which depends upon the size of the room. A large room will fill the screen whereas a staircase will only fillabout one fifth. The caricatures of the various royals are all very humorous. They're not particularly flattering, but they're not particularly savage either.

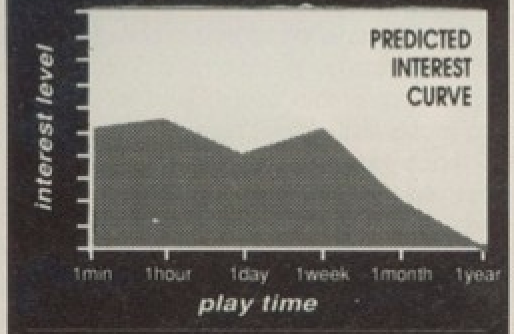
Flunky is certainly a strange game. The tasks sound easy but are excruciatingly difficult to solvesince the various parts of the solution seem to be totally unconnected with each other. Trial and error – and lots of it – is the only way to crack the game. AS

VISUAL EFFECTS ■■■■▨▨▨
Pretty, and very funny in parts

AUDIO ■■▨▨▨▨▨
Effects are few and far between

IQ FACTOR ■■▨▨▨▨▨
Will certainly have you perplexed

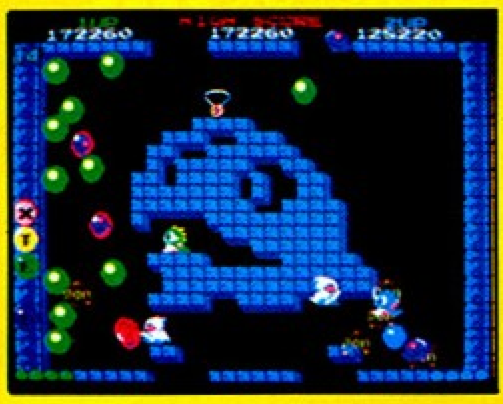
FUN FACTOR ■■▨▨▨▨▨
Too illogical to play seriously



ACE RATING 616

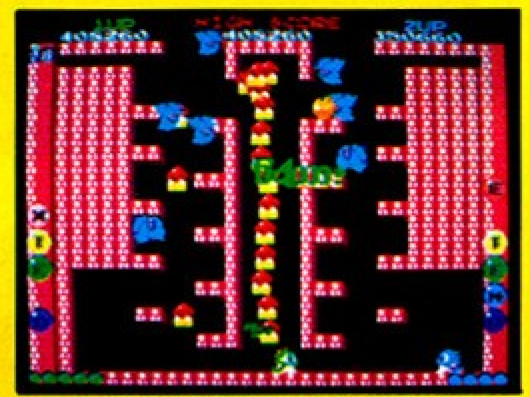
BUBBLE BOBBLE
TM

From Taito, the masters of arcade entertainment 'BUBBLE BOBBLE'



Blow and bounce and bob your way into oblivion in this incredible conversion of the greatest arcade game of the year...
Bubble Bobble will blast your brains and bruise your senses...
Baffle yourself...buy Bubble Bobble

Spectrum **£7.95** *Commodore & Amstrad cassette* **£8.95** *Commodore disk* **£12.95** *Amstrad disc* **£14.95**, *and for the Atari ST* **£19.95**



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FIREBIRD

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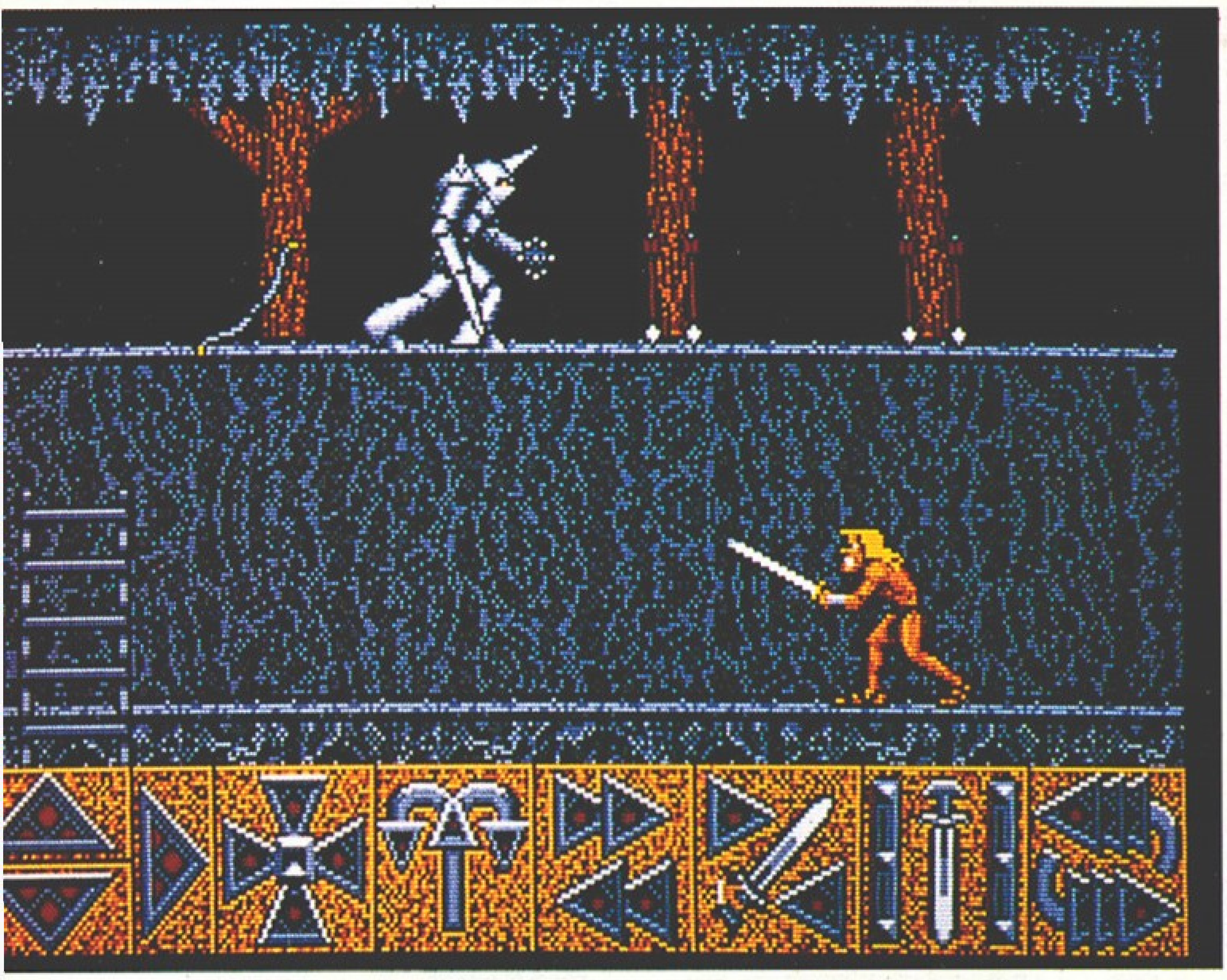


ATARI ST: **Hegor wants the bow and arrows but he's no match for that armoured bad-guy.**

BARBARIAN

SUPPLIER **PSYGNOSIS** VERSION TESTED **ATARI ST**

Release Box

Atari ST	£24.95 dk	OUT NOW
Amiga	£24.95 dk	OUT NOW

AMIGA: **Another arrow, and two more nasties guarding it - the top one throw rocks at our hero.**

NOT to be confused with the Palace game of the same name, Psygnosis' *Barbarian* is an icon-driven arcade-style adventure, whose graphics very skilfully create an atmosphere heavy with evil and danger. It ain't got much of a plot - control the flaxen-haired and muscle-bound hero Hegor on his quest to destroy the evil wizard Necron - but that doesn't detract from the pleasures available.

As Hegor you must travel to Necron's underground kingdom of Durgan, destroy the crystal which is the source of his evil power and then escape to the surface. It's a daunting task; Durgan is heavily guarded by a host of characters determined to axe you to bits or rip you apart with their bare teeth. If that's not enough to contend with then there are numerous traps to avoid; bridges that collapse under your feet; slabs of rock falling from ceilings, spikes appearing out of the ground, and much more.

The game plays pretty well - even though you flip from screen to screen rather than smoothly scrolling along - and is controlled largely from the icons displayed at the base of the screen. These are well designed and offer all the necessary moves; walk forwards and back, run ditto, jump, up and down.

The icon control is initially confusing for such a search and slash game, but is not too difficult to master. It does mean, though, that success in your scraps depends more on timing and anticipation than any real fighting skill; a sword-thrust at the wrong moment can spell disaster; time it right and you'll send your snarling foe to perdition as an evaporating mass of slimy green ectoplasm.

There are about 70 screens of 2-D views to the game area - not particularly large, but there is enough happening on each screen to make up for the lack of area.

The graphics are well drawn with good detail and shading of the walls (the usual backdrop). Colour is well used, and animation is smooth and pleasing to the eye with a distinct cartoon quality. The game's 'context-sensitive animation' can be a little tricky in that the same command will do different things according to Hegor's situation. For example, a walking Hegor when ordered to jump will do just that; a running Hegor when told to jump will produce an acrobatic forward somersault.

Sound is limited to effects, but these are entertaining and more interesting than many a repetitive soundtrack. Hegor grunts as he performs various acts and yells "help" when he flees, while the death throes of the monsters may well curdle your blood if you're of a sensitive disposition.

Barbarian is full of humour and has a lot of instant appeal - it's easy to identify with the hero and the graphics create an atmosphere which draws you into the world of the

VISUAL EFFECTS ■■■■▨▨▨

Great atmosphere, shame about the lack of scrolling

AUDIO ■■■■■▨▨

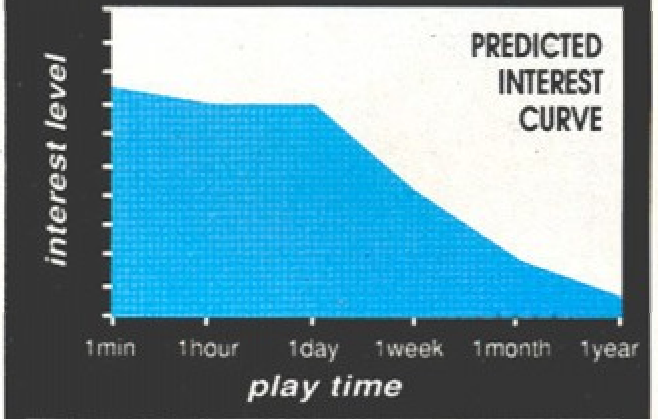
Terrific effects, but they're a bit sparse

IQ FACTOR ■■■■▨▨▨

A few posers, but nothing too problematic

FUN FACTOR ■■■■■▨▨

Easy to get involved, but can be a frustrating game



ACE RATING 725

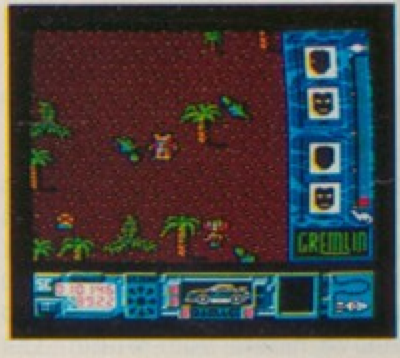
game. But there are some annoyances; it's a shame the game doesn't scroll, and it's exceptionally frustrating that you can't save a game after hours of exhausting adventuring. AS

AMIGA VERSION

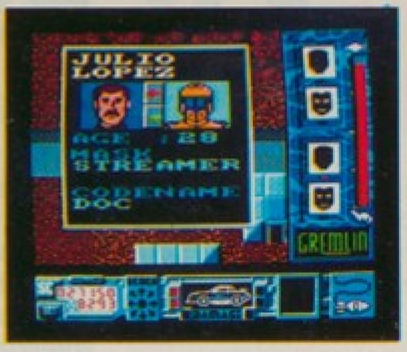
Rather more colour and an extra title sequence, but otherwise it's very much like the ST version.

MASK

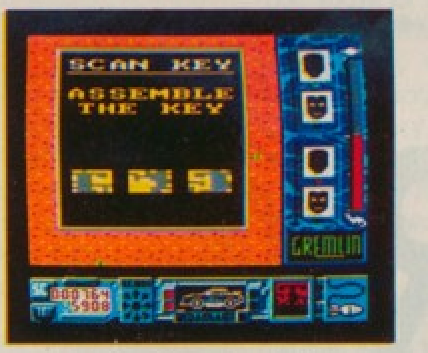
SUPPLIER **GREMLIN GRAPHICS** VERSION TESTED **AMSTRAD**



AMSTRAD: **On prehistoric Earth, Matt (centre) faces danger from dinosaurs - not to mention VENOM.**



AMSTRAD: **Matt finds Julio's mask in the future city - but where's Julio himself?**



AMSTRAD: **Assemble the pieces to form a letter, and your get a scanner.**

VENOM - that Vicious Evil Network Of Mayhem - have been up to their old tricks. They've exploded a time bomb at Mask HQ on Boulder Hill scattering all the Mask agents into a space-time vortex that. Matt Trakker is the only remaining Mask agent in a position to hit back at Venom; his job is recover his seven unfortunate Mask buddies.

You take control of Matt in his car Thunderhawk, and must rescue the other members of Mask from three different space-time locations: two agents ended up in prehistoric times, two travelled to the far future and two ended up at Venom's base. Luckily, one Mask agent dodged the forces of Venom and hid in the area surrounding Boulder Hill.

Finding your comrade at Boulder Hill is your first task in this shoot-em up with added puzzles. Viewed from above, you control Thunderhawk - initially armed with a front-firing gun - and must collect four pieces of a scanner key. The scanner keys, once collected, need to be assembled to reveal a letter. Pressing the indicated key will activate a scanner (of course you've got to pick up the scanner first). You can then follow the direction indicated to wherever your Mask buddy is hiding. Once you've collected your colleague you can go after his Mask - also to be found lying around somewhere. If you succeed in collecting all the agents and their respective Masks, you must then totally destroy Venom HQ to complete your task.

The playing area takes up the majority of the screen with relevant information shown on the right and at the bottom. Here you can see your score, the countdown clock which you are continually up against, your direction indicator which is used once you've assembled the key and collected a scanner, and a diagram of Thunderhawk.

Next is a diagram of a bomb and fuse; pick up a bomb and you can drop it next to something you wish to destroy, such as the wall at the top of the first playing area. This needs blowing up before you can drive Thunderhawk through a tunnel under the railway to the remainder of the game area. Make sure you're well clear of the bomb as the fuse burns down or you might find yourself caught up in the blast, which will do Thunderhawk no good at all.

Six boxes around the diagram of Thunderhawk indicate the level of damage you've sustained. Repair boxes, found scattered all over the game area, reduce the level of damage; but be warned - you won't always be able to get to a repair box in time if you sustain heavy damage.

Obviously Venom are not going to let you rescue your chums without putting up some sort of fight. Depending upon your time period, the enemy include tanks, pterodactyls that drop bombs (pretty neat for an extinct beast), gun emplacements and giant spiders. Each level has dangers that are peculiar to it. The prehistoric level has such curious delights as snapping turtles and man-eating plants.

Control of Thunderhawk is rather difficult at first as it tends to slide around all over the place - largely because of the control inertia Once you've got the hang of it, though, it poses no problems and actually makes driving Thunderhawk great fun. Gameplay in general is very good with each level well designed and challenging, but by no means impossible to complete. All the keys, bombs, scanners and the like have a new position at the start of every game which means no two games will ever be exactly the same. Puzzles that keep you on your toes are a welcome addition, (it can take ages to figure out how to get past that blasted railway) but these do not change every time you restart.

Smooth multi-directional scrolling adds to the high standard of graphics, which are colourful and well animated. Gremlin have found that happy medium in this game which allows plenty of background detail without cluttering up the screen or making things difficult to see. *Mask* is action-packed and full of excitement with plenty to keep you busy for a long time - or at least until *Mask 2* comes out. AS

Release Box

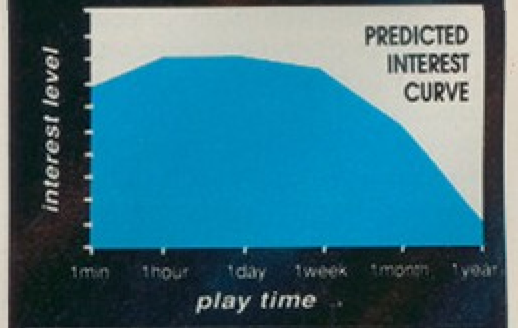
Amstrad	£9.99 cs	£14.95 dk	OUT NOW
C 64/128	£9.99 cs	£14.95 dk	IMMINENT
Spectrum	£7.99 cs		IMMINENT

VISUAL EFFECTS ■■■■■■□
Very smooth and colourful action

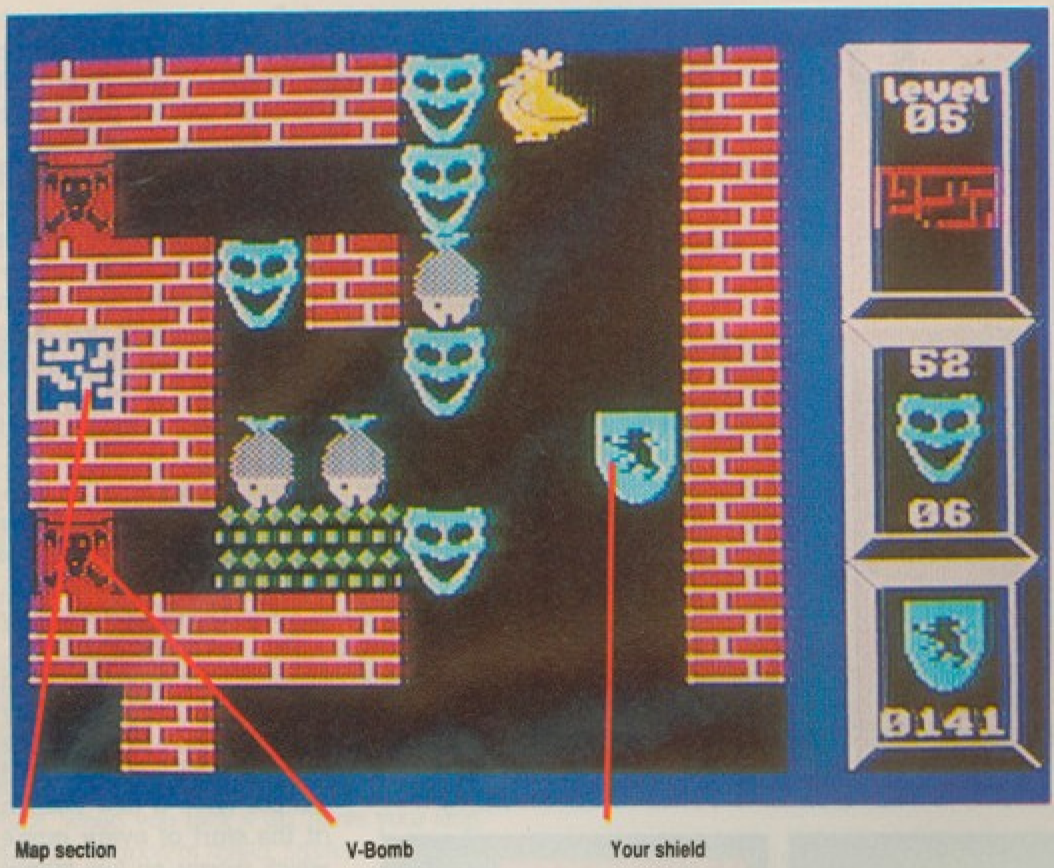
AUDIO ■■■■□□□
Adequate effects

IQ FACTOR ■■■■■□□
Some tricky problems to be solved

FUN FACTOR ■■■■□□□
Takes a little getting into – but then grabs you

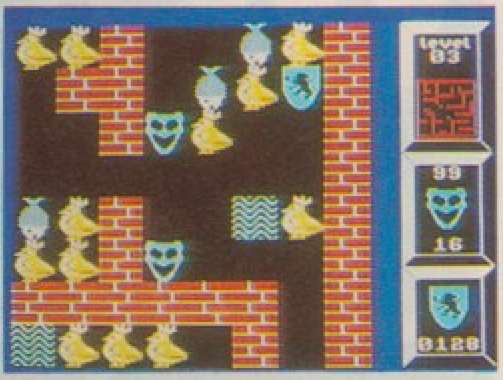


ACE RATING 874



Take the top two masks, push the chicken down and it'll run to the left., straight into the V-Bomb. This sets the bomb off, blasting a hole in the brickwork above and below. You can then get down far enough to pick up the map section, but you'll need to set the lower bomb off as well to get any further -- and that means finding another chicken from somewhere!

Take the top mask and stand well clear - it'll start a chicken stampede and fish avalanche rolled into one!



XOR

SUPPLIER **LOGOTRON** VERSION TESTED **SPECTRUM**

IF you just like high-speed mindless blasting games, you won't enjoy this one too much. Not that *XOR*'s dull mind you – it's infuriatingly addictive and can get very tough in places – but you'll really need your thinking cap on to get anywhere.

You control two shields, Magus and Questor, on their journey through a series of 15 fiendish mazes. You can move your current shield up, down or sideways, or switch control from one shield to the other. The shields have identical properties but often start a maze a long way apart – so they're both needed.

In each maze there is a set number of masks: collect them all, and that unlocks the maze exit. Get either shield to the exit and you're onto the next maze. Of course, the masks aren't always easily accessible. As you work your way through to the later mazes you'll find various kinds of object in your way. At first these are just the maze walls themselves and the game's two kinds of forcefield, but you'll soon come up against a tougher pair of obstacles – fish and chickens.

Given the chance, fish fall downwards and chicken run to the left. Often you'll find them resting on masks or forcefields, poised to fall/run as soon as these are removed. They may well block your way to a mask if they do this, or trap your shield. They can even kill you if you get in the way, so great care is needed: you don't get any extra lives, so a death usually means restarting the maze you were on.

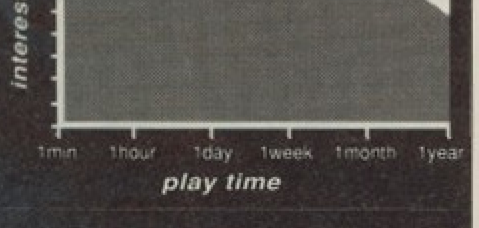
Once you've got the hang of chickens and fish separately, you're then faced with the two used together. The resulting chicken-fish formations can be very dangerous indeed: one wrong move and animals fly in all directions!

VISUAL EFFECTS ■■■■□□□
Pretty signature tune

AUDIO ■■■■□□□
Plain graphics, but they do the job

IQ FACTOR ■■■■■■■
A real brain – bender

FUN FACTOR ■■■□□□□
Suprisingly playable for such a puzzler



ACE RATING 927

With care you can 'disarm' these formations, nudging fish or chickens aside to safely remove masks from within. The thinking involved here would tax the mightiest of brains, with interlinked formations two or three screens high. One false move can drop a fish on your head, wall you in or bury a vital mask.

It's horrendously tricky stuff, and there's plenty more where that came from with bombs, transporters and cute little dolls adding to your problems on later levels. *XOR* is infuriatingly difficult at times, but always maddeningly addictive. An action

Release Box		
Spectrum	£7.95 cs	OUT NOW
Amstrad	£9.95 cs £14.95 dk	IMMINENT
C64/128	£9.95 cs £12.95 dk	IMMINENT
Atari ST	N/A	OCT 87

replay feature lets you review a failed attempt on a maze and (you hope) see where you went wrong.

The graphics may look a little simple, but they scroll nicely and serve their purpose perfectly well. The point of course is the puzzling, and that grips like a vice. AW

TAI-PAN

SUPPLIER **OCEAN** VERSION TESTED **ATARI ST**

BASED on the novel by *Shogun* author James Clavell, this historical blockbuster takes you to the South China Seas of 150 years ago. In its combination of trading, arcade-adventure and sailing simulation *Tai-Pan* tries to offer the player a varied and interesting set of tasks. Its playability is marred by control problems though, and you may well be left frustrated or simply confused.

Starting the game as a penniless sailor stranded in Canton, you have to trade, smuggle or fight your way to riches in the turbulent Far East of the 1840s. You'll need to borrow money for a ship first though, and crew her for the voyages ahead. Wandering the side-on viewed streets of the town you'll also need to keep an eye out for stores, ammunition and goods to trade in.

The choices you make in this and future shore-bound sections of the game will depend on the kind of career you plan to have. Whether you want to trade in legal goods, contraband or simply go in for outright piracy, whether you hire a volunteer crew or roam the backstreets press-ganging drunks, it's all up to you. Control over buying, selling, picking up and dropping items is by icon and pointer, with menus appearing as appropriate.

Wandering the streets of Canton in search of some financial backing: nice backdrops, shame about the animation.

The backdrops here are very pretty to be sure, but the sprites have an unfortunate 'roller-skating' action to their walk – a compromise forced on them by lack of disk space, Ocean say. It's pretty hard controlling your character at first, or just sorting out where you're going. It can even be tough simply telling where you are – location names would have helped a great deal here – and the switch from a main street to an alleyway can be confusing to say the least.

Release box			
Spectrum	£7.95 cs		OUT NOW
Atari ST		£19.95dk	OUT NOW
Atari 800	£8.95 cs	£12.95 dk	OUT NOW
C64/128	£8.95 cs	£12.95 dk	OUT NOW
Amstrad CPC	£8.95 cs	£14.95 dk	OUT NOW

Once you have a ship, crew and cargo you can set sail for other ports. After a pretty (but purely cosmetic) view of your ship pulling away from its moorings the game switches to an overhead perspective and you're at sea – in more ways than one, you might feel. Control of your vessel is limited to steering and altering your sail height – a crude process that has a rather haphazard effect on the speed of your vessel. The display is rather simplistic, showing for the most part only your ship and the surrounding coastline.

Again, the various options open to you are offered as icons along the bottom of the screen. Aside from changing the sail height or feeding the crew, you'll mostly be using these for combat. Choose 'status' and you can find out if the lookout sees other ships in the area. Follow up his sightings with 'telescope' to find out where the ships are and what flags they're flying, and then close in for cannon fire or boarding.

Both these stages load separately from disk, and neither of them are exactly advanced stuff. Cannon fire has the enemy ship sailing in a straight line past your guns. You just set the elevation, fire at the appropriate time and with luck she'll heave to ready for boarding. If you overdo the cannon you risk sinking her, but against a pirate ship this may be the best option open to you.

Boarding is a straightforward *Gauntlet*-style blast and slash effort where your object is to kill the enemy captain. If you achieve this and have enough crew to man the captured ship you can add her to your fleet, and set her to work for you running legitimate goods from port to port. If you don't have enough crew you'll have to plunder her hold and leave her.

If after six months (game time) you've amassed enough wealth you must pay back your original benefactor and then concentrate on building your mercantile empire. If not, you're for the chop – quite literally.

Overall *Tai-Pan* is something of a missed opportunity, with reasonable atmosphere but some rather weak gameplay. Mouse control is very unwieldy, and manoeuvering your ship can be extremely difficult. Shorebound menus can be rather clumsy, and don't always have 'cancel' options if you select them by mistake.

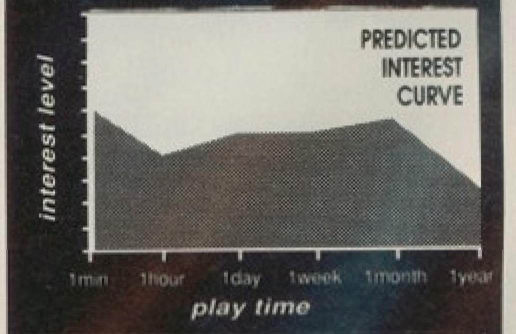
There are eye-catching graphic sequences in the game to be sure, but these usually have to load in from disk with what can be quite lengthy delays. A lot of nice touches here, but more attention to basics – ship control and sprite animation ashore, in particular – would have made a more appealing whole. AS

VISUAL EFFECTS ■■■■□□□
Nice backdrops and map, but the sprites are a bit below par

AUDIO ■■■□□□□
Tune is classy if repetitive

IQ FACTOR ■■■■■□□
You'll have to use your brain here

FUN FACTOR ■■□□□□□
Combat sequences provide some action



ACE RATING 697

DIZZY

SUPPLIER **CODE MASTERS** VERSION TESTED **SPECTRUM**

IN this arcade adventure you play Dizzy, a small egg-shaped creature whose mission is to kill the evil sorcerer Zax, an exceedingly wicked piece of work who has been conjuring rain during the Sunday afternoon cricket. And sorcerers don't come much nastier than that, do they?

To achieve your objective you must brew a strange potion that, as well as curing Athlete's Foot (as the inlay claims) will destroy Zax and end his reign of terror. In this noble quest Dizzy runs and jumps from screen to screen searching for the potion's ingredients and objects that may help him on his way. Many objects are needed to gain access to different sections of the world, which covers about 50 screens, and when and where to use them must be discovered partly by logical deduction and partly by trial and error.

The balance between puzzle difficulty and rate of progress is kept at just the right level in *Dizzy* to keep you coming back for more, but without making things to easy. The problems usually have a quite logical answer so you won't have to spend hours attempting to work out how the programmer's mind has been working.

The game is a little on the small side but at £1.99 50 screens of this quality and addictivness are not to be sniffed at – even if Dizzy does look like Humpty Dumpty. DP

Amstrad Version

Graphics are virtually identical to the Spectrum version; you might fel a little peeved about that, but they *are* very well done. Gameplay is just the same.

VISUAL EFFECTS ■■■■□□□

Pretty and nicely animated

AUDIO ■■■■□□□

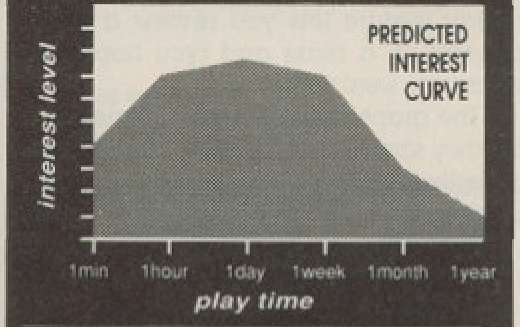
Pleasant tune and lively effects

IQ FACTOR ■■■■■■■

A fair amount of puzzle-solving to be done

FUN FACTOR ■■■■■□□

Very enjoyable – until you solve it

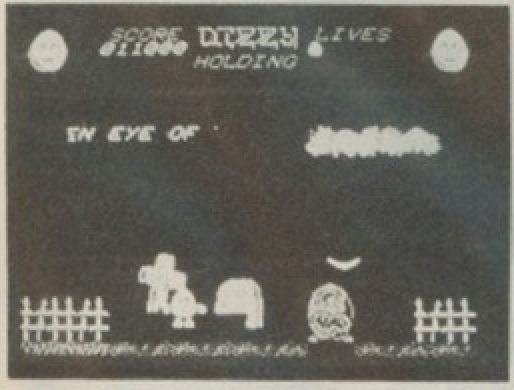


ACE RATING 788

Release Box

Spectrum	£1.99 cs	OUT NOW
Amstrad	£1.99 cs	OUT NOW

Dizzy ponders a graveyard problem



SURVIVOR

SUPPLIER **US GOLD** VERSION TESTED **SPECTRUM**

DEEP in space floats an enormous and powerful spaceship, filled with lifeforms from a thousand planets. You control a solitary creature on board that spaceship in its attempts to perpetuate its race. You carry with you ten pods, the last of your species; introduce the pods to the incubators scattered around the levels of the ship and ensure the survival of your race.

This 2D arcade-adventure covers a playing area of some 140 screens, which flip rather than scroll when your character reaches a screen border. The ship is divided into various levels, which are accessed by lifts and air vents.

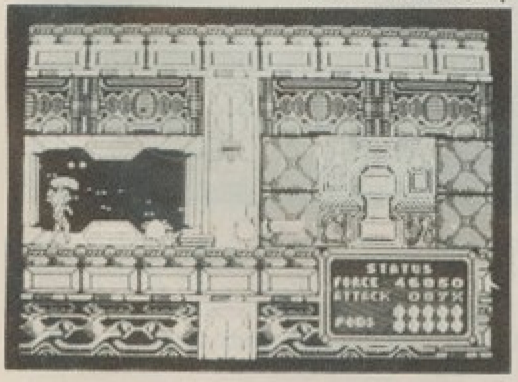
Your creature has a limited energy supply that is reduced on contact with other creatures (who come in all shapes and size from mini space-shuttles to overgrown aspirins.) Replenishing your energy involves dropping the pods into the incubators. Alternatively you can get a tasty snack by eating one of the engineers who stroll around the ship looking like animated jelly babies.

Your defence from the energy-leeching aliens is to spit at them. Your saliva contains a paralysing acid, thus making it possible to jump over the creatures. Escape is your only alternative, either by hiding in the air vents or the lifts.

Survivor's gameplay is pretty tough, demanding accurate positioning of your character to jump obstacles. Platform game elements creep in when you have to jump your way up several shafts in order to progress. Extra power for your jumps is obtained by ducking.

The animation of the characters is very smooth. Colour is used liberally and there are no attribute clashes as everything adopts the colour of its current background - this does cause the occa-

Survivor: inside the ship



VISUAL EFFECTS ■■■■□□□

Well animated and colourful

AUDIO ■■□□□□□

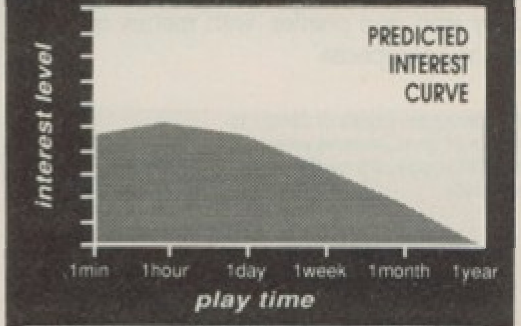
Pretty dull effects

IQ FACTOR ■■■□□□□

A few platform puzzles

FUN FACTOR ■■■■□□□

Not quite enough to do



ACE RATING 604

sional problem as the aliens can be a little difficult to spot.

Survivor will certainly test your powers of endurance and perseverance, the game will take time and effort to complete. Sadly, despite its polish and classy construction, it lacks that touch of originality that might make you want to take the trouble to try and finish it. **AS**

Release Box		
Spectrum	£8.99 cs	OUT NOW
Amstrad	£9.99 cs, £14.99 dk	IMMINENT

PIRATES!

SUPPLIER **MICROPROSE** VERSION TESTED **C64**

AAARR, shiver-me-timbers me 'arties, it's time to make all them piratical cliches beloved of games reviewers walk the plank once again as we raise the ol' Skull and Crossbones and take to the the high seas for some swashbuckling adventure with *Pirates*, the latest offering from Microprose. You captain a pirate ship buccaneering through the Caribbean in search of fame, fortune, prestige and even - stap me vitals - a marriageable wench.

Pirates works through a series of action and strategy screens. At the beginning of the game you select the level at which you want to play - Apprentice through to Swashbuckler - and an historical period. Once you're in command of your ship your actions are guided by the choices in the windows that appear.

The display initially shows your ship bobbing around on the blue Caribbean, wafted by the winds and guided by yourself. You can either put in to port or cruise the shipping lanes waiting to encounter a suitable prey. If you put in to port you might choose to go to see the Governor, trade with merchants or go boozing in the local tavern. Here you can take on new crew, loose old crew and bribe various old sea dogs for information and treasure charts. Whether you can pay for any of this, of course, depends on how well you've been doing in the plunder and piracy stakes.

When out on the high seas you have to decide whether or not to attack the ships you meet, this will depend largely on the state of your crew, the number of cannon you have and whether you have room in your hold for booty. Doing battle involves circling around the other ship and trying to get a good shot in. Almost invariably you have to ram your victim and board ship. Victory or defeat is a function of the relative size and morale of the two crews.

The battle is only resolved when, 'out of the smoke', you see the enemy captain approaching. There follows a ridiculous 'arcade' sequence as the two stick-like figures wave what are supposed to be swords at each other, a hit producing a mousey and very feeble squeak.

Microprose have got a bit of a nerve calling *Pirates* a simulation; it's basically an old-fashioned role-playing game of the type you could find three or four years ago. F-15 airplanes are one thing, but the data just isn't available to 'simulate' in any meaningful way a long-distant historical period.

Of course, it's fun pretending to be a pirate, whether the game deserves to be called a simulation or not. Unfortunately *Pirates* very quickly becomes repetitive and - at points - very strange indeed. Despite the large number of ports you can put in to, the Governors have a very limited vocabulary and it becomes very tedious indeed to be told the same thing wherever you go.

And something very odd is happening around the Caribee Islands; put in to an English port, visit the Governor and he will introduce you to his daughter. She takes a shine to you and, bold buccaneer that your are, and you ask if she wants to marry you. She declines - her fiance Major Fielding will do very nicely, thank you very much.

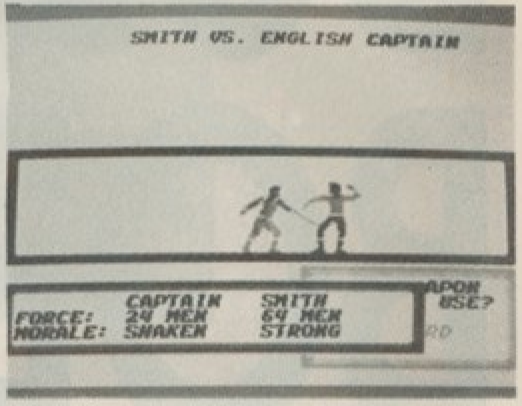
Fair enough. Better luck next time. You can't win 'em all. Plenty more fish in the sea. You sail off and pop in at the next island with a British Governor. He says exactly the same words as the previous one, he introduces you to his daughter; she takes a shine to you, you ask for her fair hand in marriage, she declines because...... yes! It's that randy old dog Major Fielding again.

Now, either Major F has got a pretty neat ship out there - a 200 m.p.h. speedboat perhaps - or something has gone badly amiss with the game design and/or programming. Whatever the cause - and it is an isolated incident - it's symptomatic of what's wrong with *Pirates*, far too much repetition and not enough scope for genuine skill and strategy.

The game does have its moments and is enjoyable enough for the occasional voyage. The packaging is excellent, too, with a nicely produced map of the Caribbean and a booklet filling you in on the historical background. But it's not the kind of game that will either make jump around in excitement or grip you by its deep and complex gameplay. **PC**

Release Box		
C64/128	£14.95 cs, £19.95 dk	IMMINENT
Amstrad	N/A	DEC 87

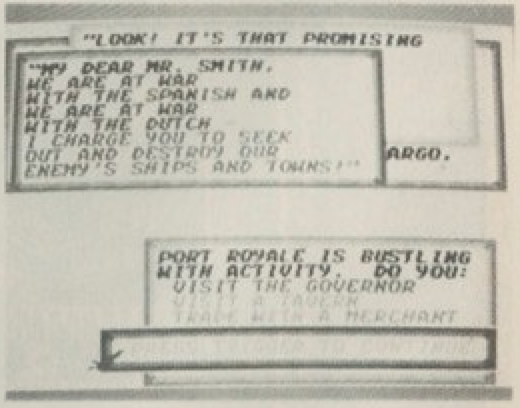
Have at you! With sky-high morale and 64 men behind him it looks like victory is Smith's



SMITH VS. ENGLISH CAPTAIN

	CAPTAIN	SMITH
FORCE:	24 MEN	64 MEN
MORALE:	SHAKEN	STRONG

A visit to the governor gets you a politics lesson



"LOOK! IT'S THAT PROMISING

"MY DEAR MR. SMITH,
WE ARE AT WAR
WITH THE SPANISH AND
WE ARE AT WAR
WITH THE DUTCH
I CHARGE YOU TO SEEK
OUT AND DESTROY OUR
ENEMY'S SHIPS AND TOWNS!"

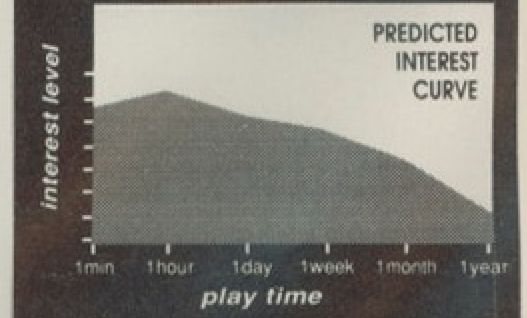
PORT ROYALE IS BUSTLING
WITH ACTIVITY. DO YOU:
VISIT THE GOVERNOR
VISIT A TAVERN
TRADE WITH A MERCHANT

VISUAL EFFECTS ■■■□□□□□
Could and should have been much better

AUDIO ■■□□□□□□
Wind, waves and cannon-fire

IQ FACTOR ■■■■□□□□
Some tricky decisions to be taken

FUN FACTOR ■■■■□□□□
Despite the drawbacks it can be good fun



ACE RATING 734

BUBBLE BOBBLE

SUPPLIER **FIREBIRD** VERSION TESTED **C64**

IF you don't normally associate Firebird with coin-op conversions, this one may come as a bit of a shock. Where *Cholo* and *Sentinel* were heavy on the IQ, *Bubble Bobble* is solid arcade playability.

As in the Taito original, the main characters are two cutesy little dinosaurs – Bub and Bob by name – who blow bubbles, burst them and run round collecting things. The 2D playing area's viewed side on, and since most screens are high-rise efforts there's a fair amount of platform-jumping to be done.

Release Box

Spectrum	£7.95cs	OCT 87
C64/128	£8.95cs £12.95 dk	OCT 87
Amstrad	£8.95cs £14.95 dk	OCT 87
Atari ST	£19.95dk	OCT 87

It's a true two-player game, with Bub and Bob either competing for points or co-operating to reach higher levels. Even if you select a single-player game, a friend can join in at any time. Simply press fire on joystick two, Bob appears and you're in business.

To complete each of the game's 100 screens, you'll need to tackle its complement of 'bullies' (bad-guys) using bubbles. Blow your own bubble around a bully at close range and he'll float off trapped inside: jump up to burst the bubble, and the bully turns into a nice juicy piece of fruit. There's no time to waste here though – if the bubble bursts before you reach it the bully will be free again, and meaner than ever!

Collecting the fruit from defeated bullies earns you extra points, but there's a knack to hitting the real high scores. If you burst bullies individually they turn into humble bananas, but burst several at once and you'll get a whole spread of juicy (and valuable) items.

Dodging bullies can be a tricky business, especially given that they can outrun you on the level. Shooting's none too easy either: your bubbles only carry a very short distance before floating off harmlessly. Pick up a running shoe though and you're up to sprinting speed, while some gum gives your bubbles that bit more staying power.

As you progress onto higher screens you'll find better weaponry in the form of water, fire and lightning. All these come in bubbles – burst them at the right moment and you can really wreck those bullies! What's more, bullies destroyed like this turn into diamonds rather than fruit, and diamonds are worth big points.

VISUAL EFFECT ■■■■■□□

A bit cutesy, but very good-looking

AUDIO ■■■■■□□

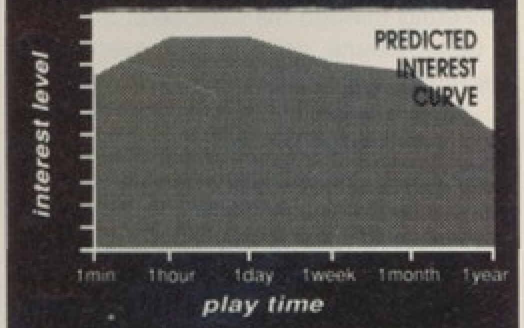
OK effects and terrific music

IQ FACTOR ■■□□□□□

You need to think a bit in places

FUN FACTOR ■■■■■■■

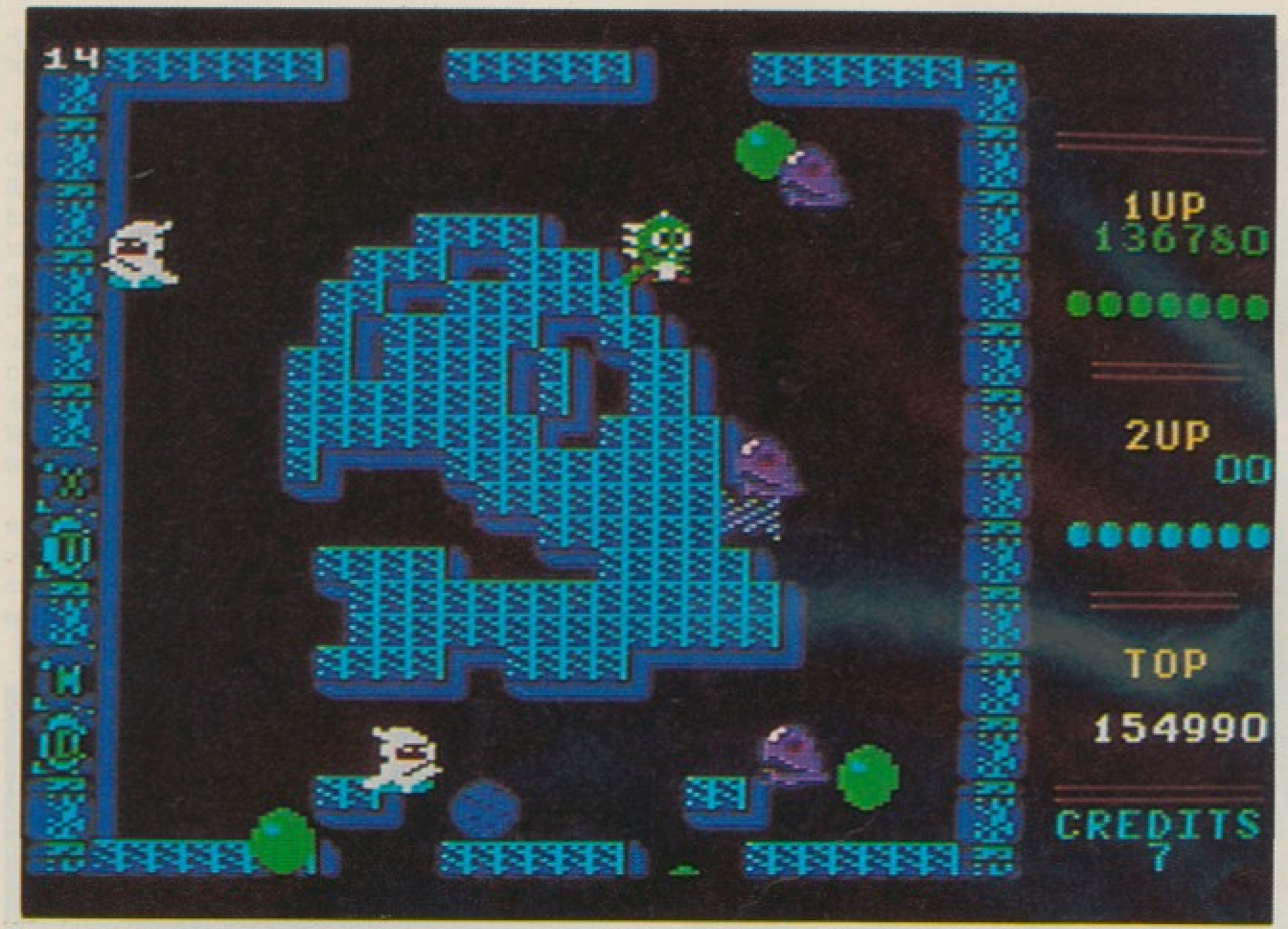
Wonderfully playable!



ACE RATING 958

There are all manner of strange bonuses and powers to collect as you work your way through the game, but they can be difficult to get to and most of them vanish if they aren't collected quickly. Lethal extra firepower can be very handy, and timed bonus screens yield enormous score increases if you can clear them fast enough. Spend too long on any one screen and you'll be told to 'Hurry Up'; to help get the message across, all bullies still on the screen turn into their meaner 'escaped from bubble' forms making things a good deal more dangerous. If you still don't get a move on a bubble-proof nasty comes after you, so time is of the essence!

For a largely non-violent and (some would say) rather twee game, *Bubble Bobble* really is amazingly addictive stuff. Pleasing graphics and great music add to its appeal, but with such a playable game Firebird had to be onto a winner. AW


14
1UP
136780
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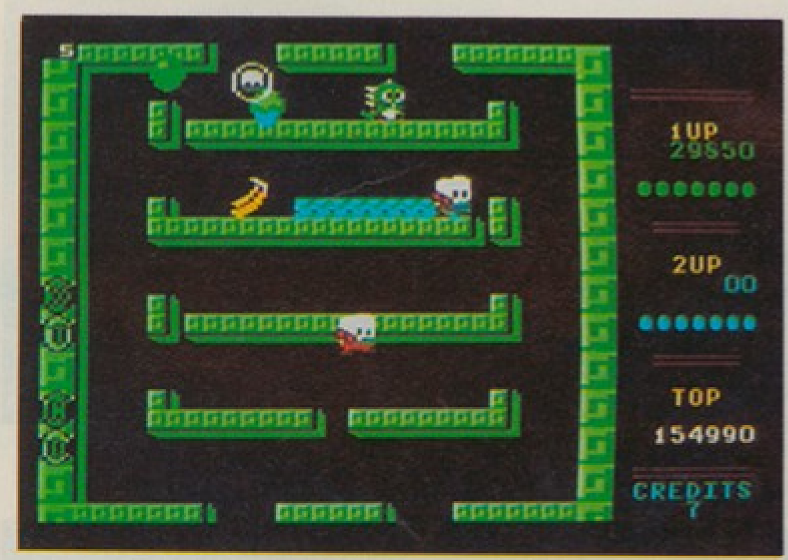
CREDITS
7

Screen 14: **A very nasty screen this one, with ghosts galore and nowhere for Bub to hide!**


5
1UP
29850
2UP
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CREDITS
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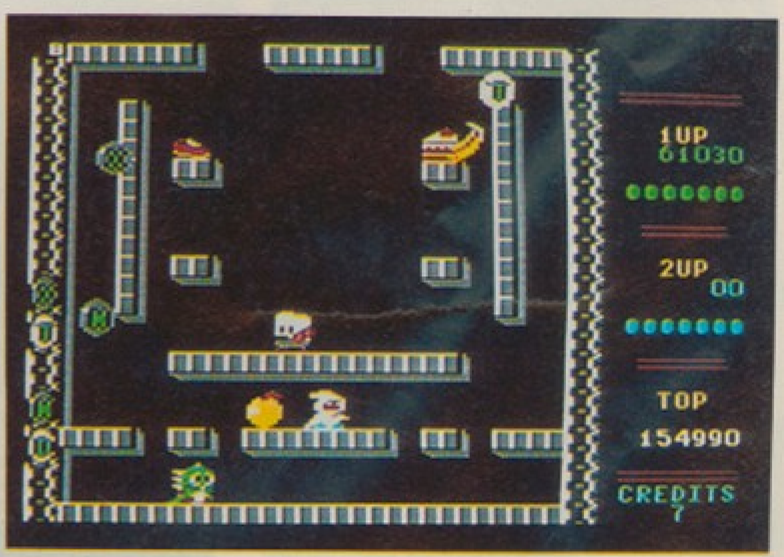
Screen 5: **One bully in a bubble and the other being washed away - looks like two more bananas coming up!**


1UP
61030
2UP
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CREDITS
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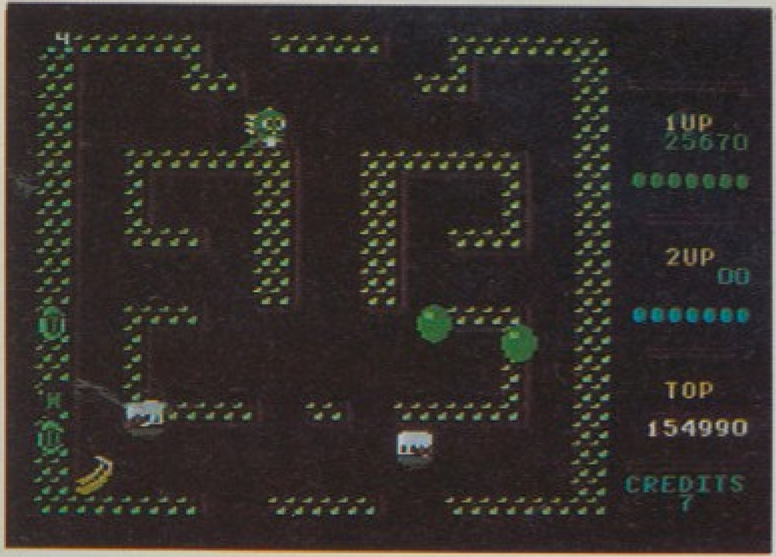
Screen 8: **That running shoe up above Bub's head will get him some extra speed - if he can reach it in time.**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1UP
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CREDITS
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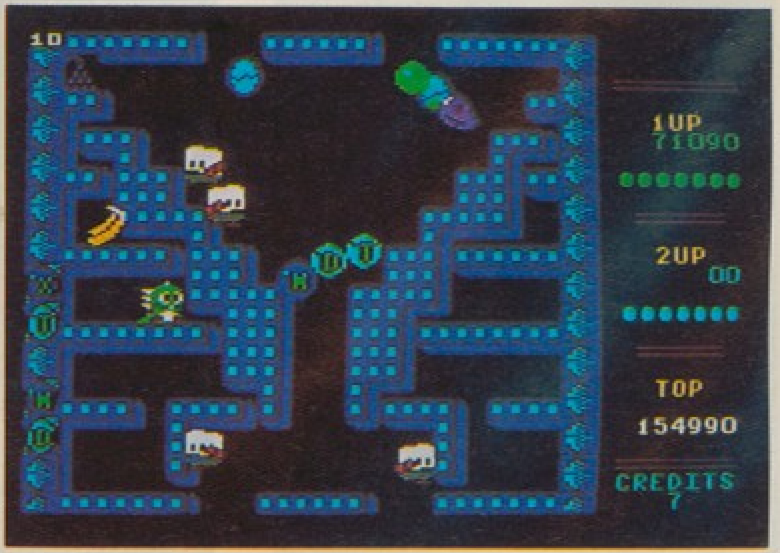
Screen 4: **Can Bub drop down onto that banana without hitting that banana?**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1UP
71090
2UP
00
TOP
154990
CREDITS
7

Screen 10: **Bananas are all very well, but those grapes up there are worth big points!**

IMPACT

SUPPLIER **AUDIOGENIC** VERSION TESTED **ATARI ST**

IF *Arkanoid* owed a certain amount to that golden oldie *Breakout*, *Impact* owes a great deal more to *Arkanoid*. You know the drill - move your bat from side to side, trying to keep a ball bouncing round the playing area. As the ball bounces off the patterns of coloured bricks there it breaks them down, often releasing "tokens" which can give either bat or ball useful extra properties if you catch them. Clear the screen and you get another, harder pattern to work on.

Derivative needn't mean bad though, and in this case it certainly doesn't. Original touches and subtle differences from its predecessors give *Impact*'s gameplay a character of its own, but there are more obvious distinctions too.

Above all, *Impact* is terrific to listen to. It doesn't quite have *Arkanoid*'s visual appeal, but on sound effects it wins easily. There's the xylophone chime every time the ball hits a brick, the screech of your laser and missile fire, the glockenspiel trill when you catch a falling token - all of these merging into a frenzied, ridiculous cacophony as the ball really starts moving.

On the gameplay side, the clever system for getting extra powers adds a lot to *Impact's* appeal. From time to time, small yellow 'tokens' tumble down from bricks that the ball has just destroyed. Catch one of these with the bat and click the right mouse button, and you'll engage the 'slow' option (see the POWERS box). Catching two tokens, and clicking the right button gets you a magnetic bat; catch three to divide the ball, four to get a wide bat and so on. A small pad on the right of the screen shows you the power you've 'earned' so far.

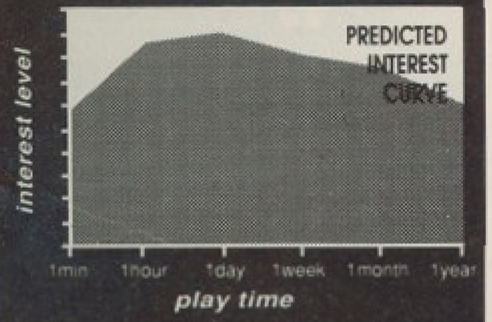
When you select a power, you lose your tokens and start again from zero. You have to spend them wisely then, but this can be tricky. Unless you're counting tokens

VISUAL EFFECTS ■■■■■■□□
Very colourful – but not quite as pretty as Arkanoid

AUDIO ■■■■■■■□
Brilliant tinkling, twinkling effects

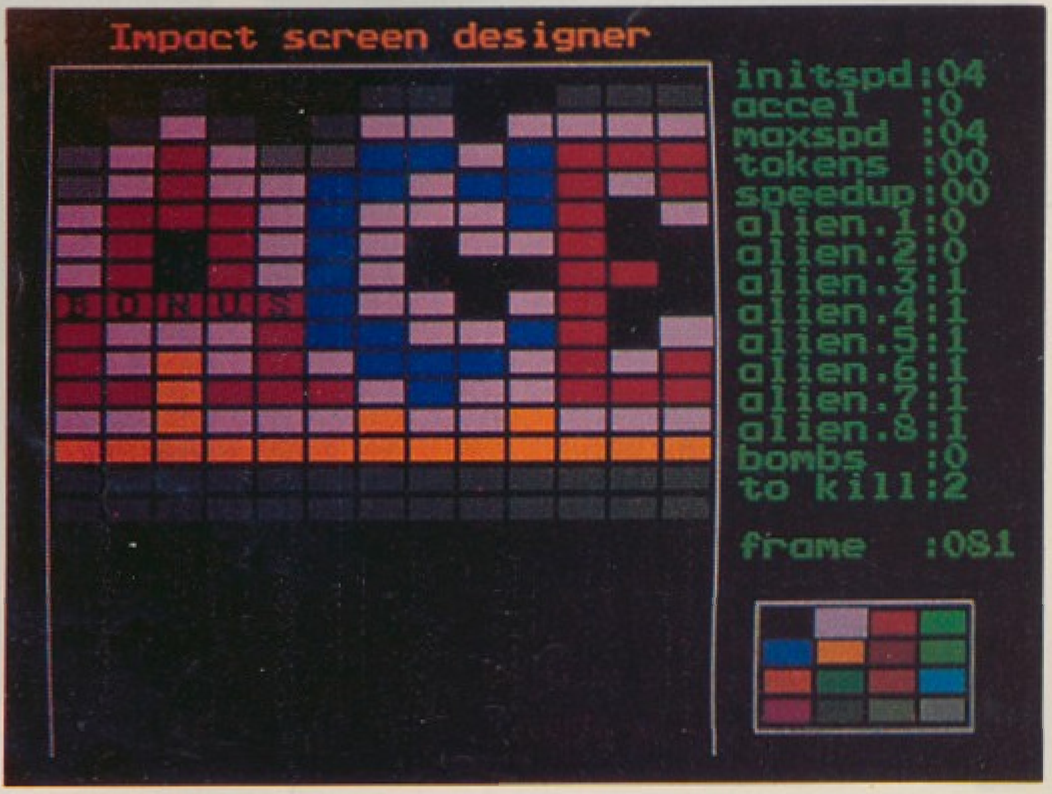
IQ FACTOR ■■■□□□□□
Not too troublesome

FUN FACTOR ■■■■■■■■
Total addiction



ACE RATING 9 5

Build frames of your own using Impact's handy screen designer. When you've got them just right you can write them to disk, boot up the game itself and play them!



```
initspd:04
accel  :0
maxspd :04
tokens :00
speedup:00
alien.1:0
alien.2:0
alien.3:1
alien.4:1
alien.5:1
alien.6:1
alien.7:1
alien.8:1
bombs  :0
to kill:2

frame  :081
```

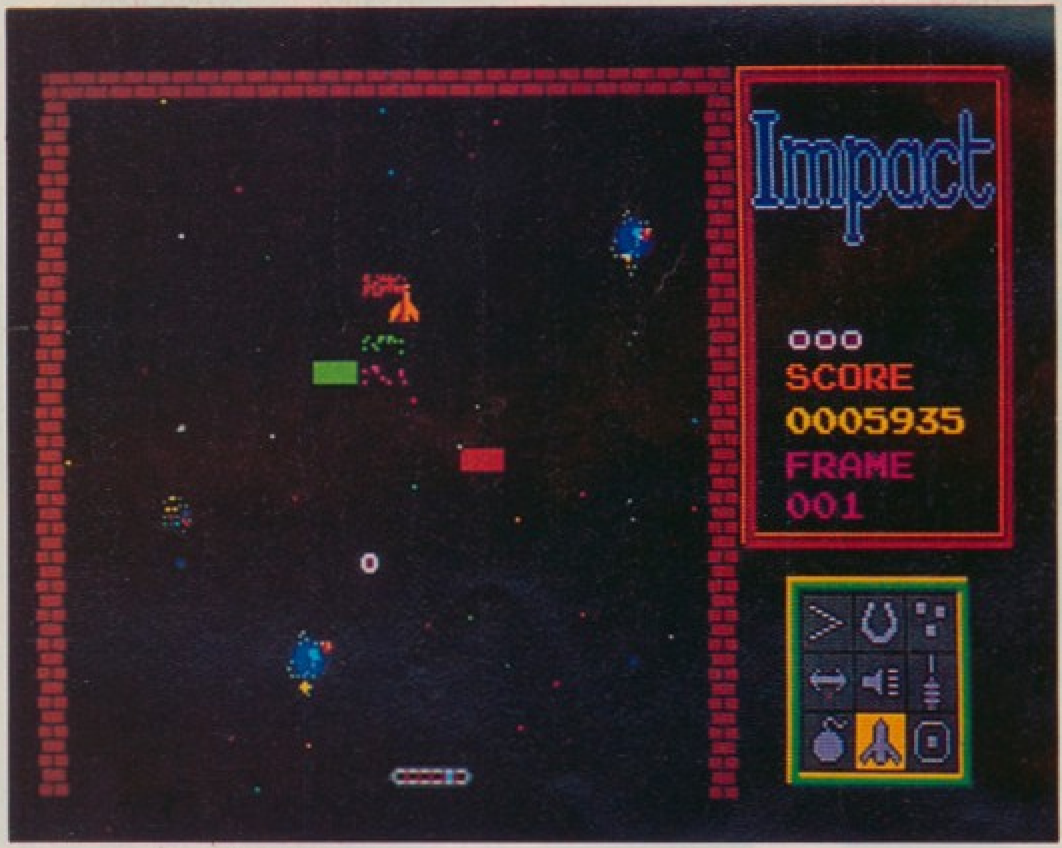
you've got to keep an eye on the icon pad, without losing your concentration on the ball and bat. Missing the option you want by catching too many tokens can be as bad as selecting too early, because there's no easy way back.

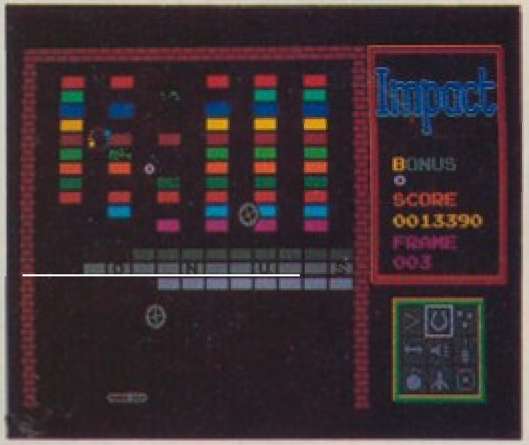
Release Box

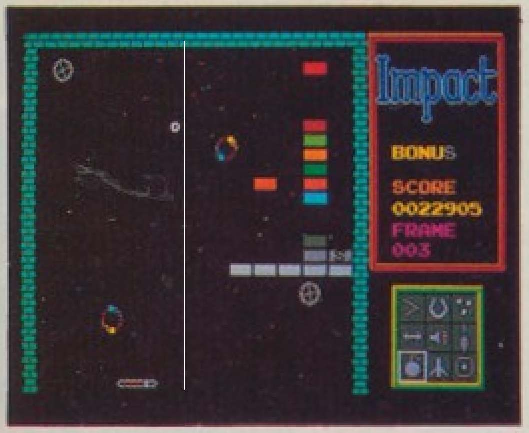
Atari ST	£14.95dk	OUT NOW
CBM64/128	N/A	IMMINENT
Spectrum	N/A	IMMINENT
Amiga	£14.95 dk	IMMINENT

You can't carry tokens across from one frame to another, but you do get 1000 points for any you don't use. This is an enormous boost, and if you're going for a high score you probably won't want to use your tokens at all.

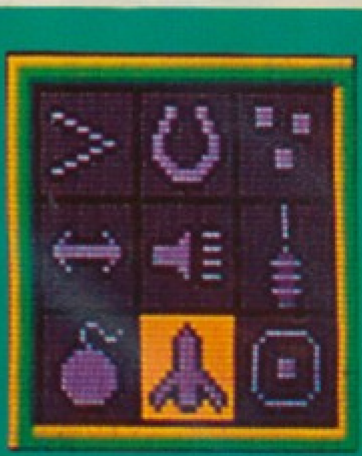
Impact is amazingly addictive stuff, and just has the edge over *Arkanoid* in itself. But there's an additional reason for preferring it, in the form of a screen-designer. After *Impact*'s 80 built-in frames (*Arkanoid* has 33) there's room for another 48 of your own design. These can incorporate any of the game's different brick types, aliens and bombs. You've also got control over the ball's speed and acceleration so there's plenty of scope for you to experiment. AW







(Above) **Cut loose with Impact's devastating missile option and watch those bricks evaporate!** (Left & below left) **Knock out those BONUS bricks in the right order to pick up an extra life.**



TOKEN POWERS

SLOW
The ball's speed rises continually during play, often making impossible demands on the player's reflexes. SLOW takes it back to starting speed, which can be useful towards the end of a level - but then you'll probably have too many tokens for it by that time anyway!

MAGNET
Makes the ball cling to the bat, only carrying on when you hit the left mouse-button. This means you can catch the ball, move the bat and release again to take out isolated bricks or get the ball through narrow gaps. For pinpoint accuracy you can "nudge" the ball along the bat by clicking the right mouse-button.

DIVIDE
Splits the ball into three, giving you twice or three times the brick-hitting power as long as you can keep juggling. Be warned though - the balls fly off in different directions immediately. Use it low on the screen and you might well lose all three.

WIDE BAT
Use this and flaps fold out either side of your bat, doubling its width. Very handy for high speed play, but frowned on by reflex fiends.

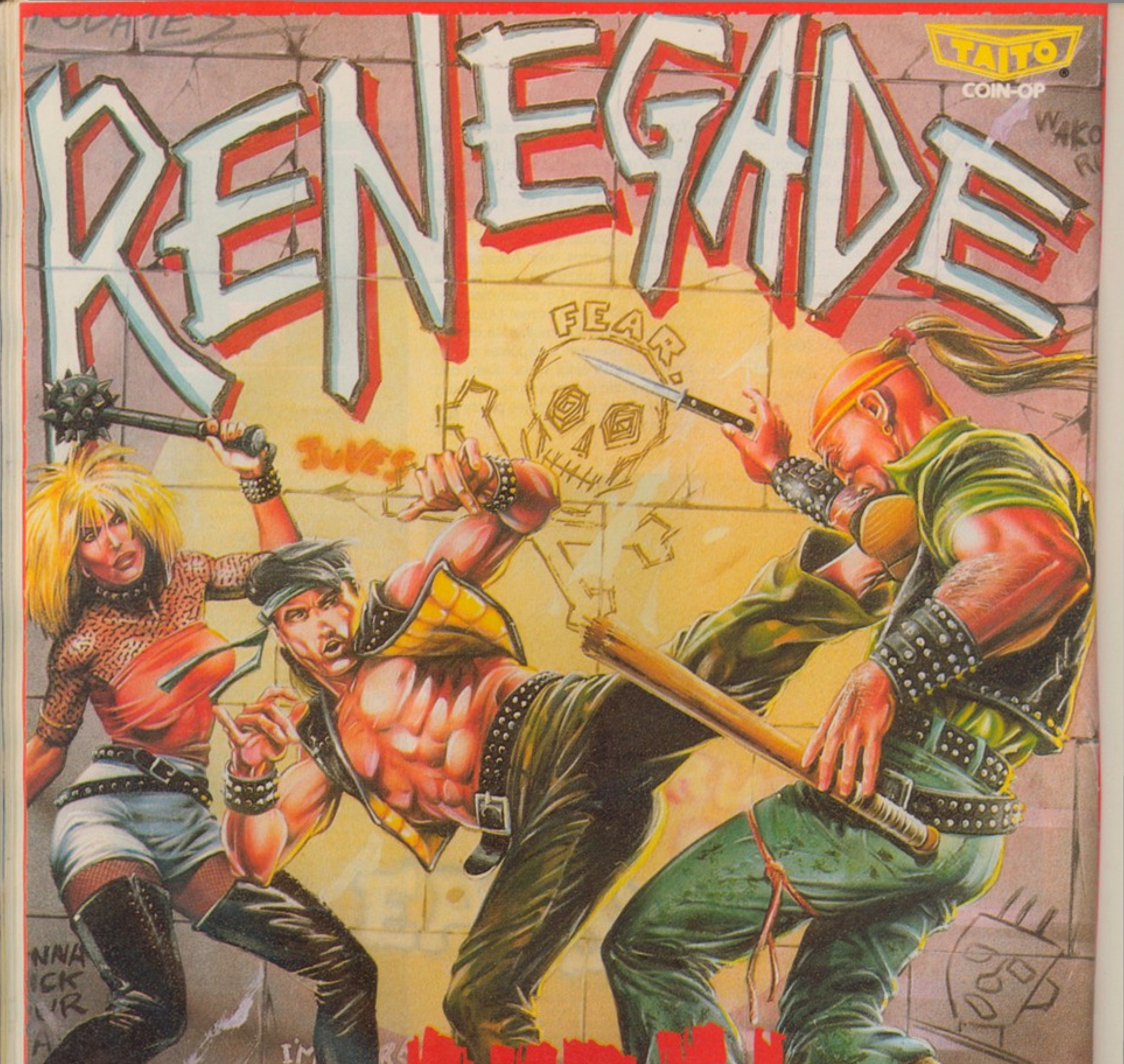
TORCH
Shows up those naughty invisible bricks which can get so confusing otherwise. It's more a luxury than a practical option, but can be very handy when you're exploring new screens.

LASER
The first of the really powerful options, this lets you shoot bricks or aliens. Each hit is equivalent to one ball impact, so a double-hit brick will need shooting twice. You've still got to keep the ball bouncing, mind you. As for clearing stuff out from behind indestructible or laser-reflecting bricks, you'll have to do that the old-fashioned way.

SMART BOMB
Kills all aliens on the current screen, permanently. That includes the infuriating 'bombs' - small yellow nasties that temporarily freeze the bat - making this a very useful option indeed on the higher levels. It does make things a lot less interesting though.

MISSILE
Very powerful stuff indeed. Like LASER this lets you shoot bricks. Unlike LASER your shot powers on up through whole columns of bricks, taking any aliens in its stride. Great for clearing out the screen edges, but do use your shots wisely - you only get three!

FORCEFIELD
The ultimate option in more ways than one, this gives your ball the hitting power of a missile. Slice your way through bricks and aliens alike with this one. FORCEFIELD takes so many tokens you'll only ever get it in time for mopping up, but it is impressive.



In the knife-edge world of the vigilante there is no place to rest, no time to think – but look sharp – there is always time to die! From the city subways to the gangland ghettos you will always encounter the disciples of evil whose mission it is to exterminate the only man on earth who dares to throw down the gauntlet in their path – the Renegade. A breathtaking conversion of the arcade hit by Taito now for your home computer. With all the original play features.

PLAY RENEGADE...PLAY MEAN!

imagine ...the name of the game

SPECTRUM	COMMODORE	AMSTRAD
7·95	8·95	8·95

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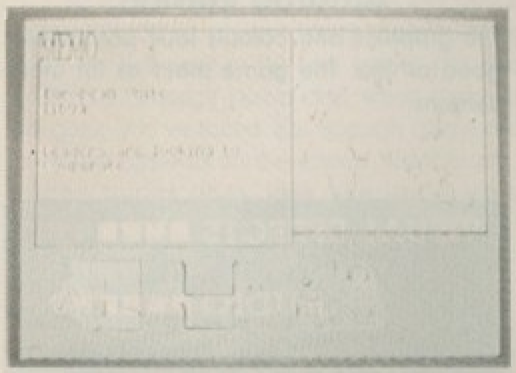
Imagine Software · 6 Central Street · Manchester M2 5NS · Tel: 061 834 3939 · Telex: 669977

ARMAGEDDON MAN

SUPPLIER **MARTECH** VERSION TESTED **SPECTRUM**

IT'S 2032 AD and the world is *not* a safe place. You are the Supreme Commander of the UNN – The Armageddon Man; your mission is to keep the peace between the rival nations, using all available resources to ensure that nuclear war does not break out. You are resident in an enormous and sophisticated satellite codenamed Olympus, where you control a network of spy and laser defence satellites.



In this icon-driven strategy game the screen is split into two main sections. A map of the world occupies the top right corner while the five main icons displayed to the left and across the bottom of the screen are your means of controlling the game: your satellite icon means you can secretely listen to messages. The communication icon is divided into In and Out trays enabling you to read and send messages. The radio monitoring icon, enabling you to receive radio messages; some of these, though, need a fair bit of decoding.

Armageddon Man's gameplay depends largely on the memo's which pop onto the screen throughout the game: they demand action, either immediately or in the future, and how you respond to them determines the course of events. Firing off a stiff note reprimanding two powers who aren't getting along can defuse an explosive situation; if you just ignore events then sooner or later there's going to be a nuclear war.

Since maintaining peace and stability are your main objectives, you must ensure that countries have a sound economy and that they are getting along with the other countries. And military stability is, of course, particularly important.

There's nothing graphically outstanding in the program but *Armageddon Man* has a lot to offer: the deeper you get into it, the more rewarding it becomes. Note, though, that *The Armageddon Man* is a game more for the seasoned strategist than the dabbler. AS

Release Box

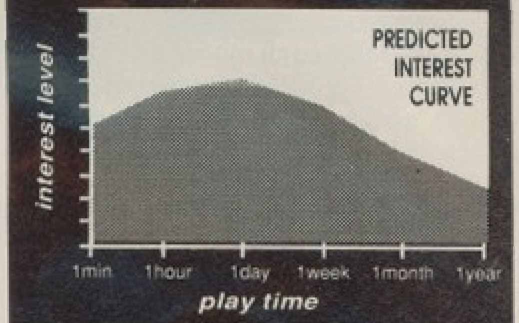
Spectrum	£12.95 cs	OUT NOW
Amstrad	£12.95 cs £19.95dk	IMMINENT
C 64/128	£12.95 cs £13.95 dk	IMMINENT

VISUAL EFFECTS ■■■□□□□□
Good screen design

AUDIO ■■□□□□□□
Reasonable, but nothing special

IQ FACTOR ■■■■■■□□
Can become very involved

FUN FACTOR ■■□□□□□□
Not a game you pick up and play for just half an hour



ACE RATING 793

MRS MOP

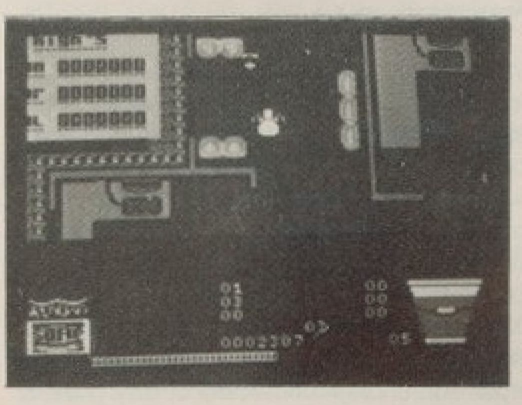
SUPPLIER **REAKTOR** VERSION TESTED **C64**

MRS MOP is a school cleaning lady, just trying to do her job while being assaulted by staff, pupils and even a horde of savage dogs. Yes, the British educational system is in a real mess. Just to add to your problems Mrs Mop has a bad back and if it goes you'll need a week off to recover. But fear not, for you are no ordinary cleaning lady: you can hurl soap at your assailants, or even kill and clean everything on screen at once by using a can of Gleamo – the cleaning lady's answer to smart bombs.

The game displays an overhead view of the school, scrolling around the figure of Mrs Mop as she cleans and shoots. The school is divided into sections and to complete a section Mrs Mop must clean all of the floor and kill a certain number of each type of attacker. You begin the game with five weeks to complete your task; a slowly decreasing back-strength bar at the bottom of the screen indicates how long it will be before you will have to use one of those weeks resting to heal your back. The process of cleaning is further hampered by the fact that the water in your cleaning bucket quickly runs out, at which point you must find a sink and tap in order to refill it.

Release Box

C64	£4.99 c s	OUT NOW



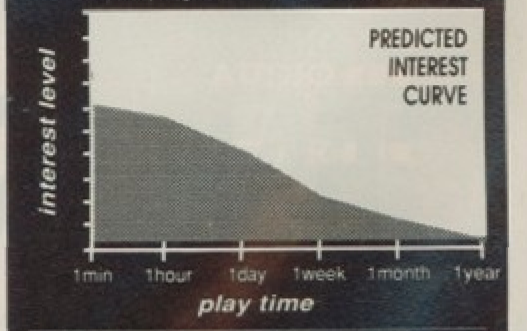
Mrs Mop does her stuff , set upon by the revolting inmates of our schools

VISUAL EFFECTS ■■■□□□□□
Standard issue

AUDIO ■■■□□□□□
Nice intro tune

IQ FACTOR ■■□□□□□□
Floor cleaning don't trouble the brain too much

FUN FACTOR ■■■■□□□□
Easy to get in to but the fun won't last too long



ACE RATING 532

This type of four-way-scrolling shoot-em-up is pretty common these days and though the scenario is original, the floor cleaning part soon becomes more a frustration than an interesting variation from the norm. That said, the game is competently put together and reasonably good value at the price. AS

DEATH WISH 3

SUPPLIER **GREMLIN** VERSION TESTED **C64**

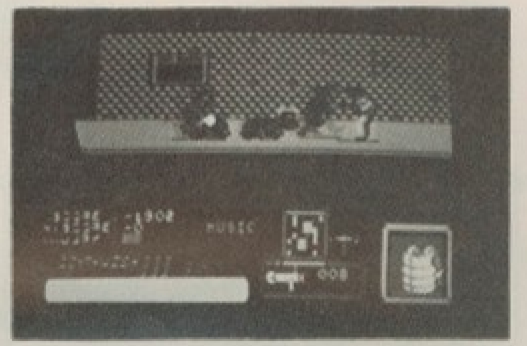
THIS game of the film raises computer-screen gore to new heights. You have the pleasure – some might say the *dubious* pleasure – of playing Paul Kersey, macho-man vigilante hero of Charles Bronson's *Death Wish* films. It is your task to rid New York of the gangs of creeps who are constantly rioting in the streets and making life a misery for decent citizens.

The object of the game is to find and kill the evil gang leaders who are instigating the mayhem. To this end you are equipped with a variety of weapons, a map showing either your location or that of the gang leaders and a bullet-proof vest. You also receive a printout from Police HQ telling you where new riots are breaking out and a compass that shows the direction you are facing.

Release Box

C64	£9.99 cs £14.99 dk	OUT NOW
Spectrum	£7.99 cs	OUT NOW
Amstrad	£9.99 cs £14.99 dk	OUT NOW

The top half of the screen displays a side-on view of the action as you run along the streets or through buildings blasting the thugs whilst attempting not to hit the Police (also fighting the riot) or the innocent old ladies who, if not being mugged, seem oblivious of all that is going on around them. Also wandering the streets are a large number of prostitutes; you can tell that's what they are because they repeatedly hike up their skirts to flash a bit of thigh.



C64 **A paramedic drags a corpse off.**

You start the game with an armoury that would be the envy of many an army; rocket launcher, machine gun, pump-action shotgun, pistol. When you have used all the ammunition in a weapon then it is discarded and the next is used. If you use all your weapons then you must search for another. You can, of course, swap between available weapons whenever you like.

Any contact with gang members means they will start beating you to death with clubs fists or, if they're upmarket punks, they will have a gun with which they can shoot you from a distance. If you have no weapon you are helpless and must run away but when armed you can gun them down and, with the right weapon, totally mutilate and mangle their bodies. Using the pump-action shotgun leaves your victim a mass of strawberry jam on the sidewalk.

Once the gang leaders have been found and shot things will become quiet, but a new riot soon breaks out and you're off again hunting down the new leaders.

Gremlin have made a good job in creating an amusing action-packed game from a rather limited film licence. Though the violence is relentless and gratuitous, nobody's going to take it seriously. Are they? The lasting appeal of the game is doubtful, but it's worth checking out if only for its colourful and gory graphics. DP

Spectrum Version

Colours not quite so bright; somehow you seem to miss out on the gore the other machine supply.

Amstrad Version

The graphics and colours look particularly good on this. The game plays as for other versions.

VISUAL EFFECTS ■■■■□□□

Very gory deaths

AUDIO ■■■■■□□

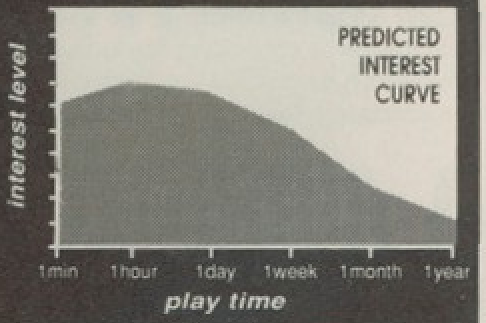
Excellent sound track

IQ FACTOR ■■■□□□□

Will take some thought to find all gang leaders

FUN FACTOR ■■■■□□□

You'll get in to it easily; but it may not last



ACE RATING 739

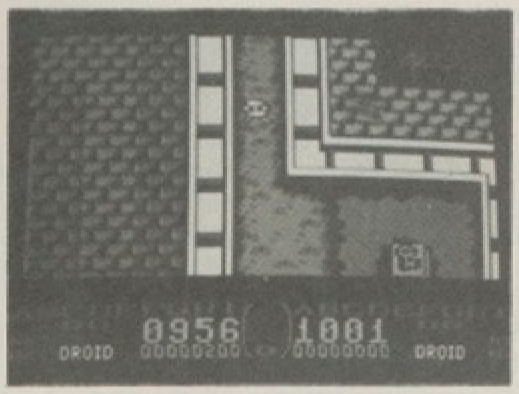
CENTURIONS

SUPPLIER **REAKTOR** VERSION TESTED **C64**

TAKE control of a team of superbeings who differ from you and me in so far as they have frameworks – Exoframes – attached to their bodies. These gadgets support a number of weapons to help the Centurions in their struggle against the evil Doc Terror.

Centurions, the computer game, is the final conflict between the Centurions and the forces of Doc Terror, who has broken into the Weapons Development Centre and stolen several cases of Tyron-Dichromate, an untested chemical devised to allow the process of Nuclear Fusion.

It's a one or two player arcade style adventure-maze game in which you control one of three Centurions, Jake Rockwell, Ace McCloud or Max Ray. You can choose whichever Centurion you'd like to be and you can change characters at any point in the game. Your mission is to clear all three of the game's levels of the chemical. The problems start when you come to collect the six large keys needed to exit from one level to the next.



C64 **Jake finds a key in the water**

To get at the exit keys you have to unlock several doors. The keys for these smaller doors are positioned on small islands, each of which is accessible only by

Release Box

C64/128	£9.99 cs	£12.99 dk	OUT NOW
AMSTRAD	£9.99 cs	£12.99 dk	OUT NOW
SPECTRUM	£8.99 cs		IMMIINENT

the character related to it. Ace McCloud, for example, can only get keys on islands surrounded by his particular colour (black).

To change between characters you must go to a selection zone. You simply walk over the zone of your choice – either land, sea or air – to become the character corresponding to that particular zone. Alternating between characters is essential as the keys are located on several different islands.

To make things difficult there is a host of aliens shooting at you, each hit depleting your limited energy by one point. You start with 1001 energy points and when they are all gone you've failed. Kill enough aliens and a 'quant' appears on the screen. Quants are funny things: they look like large white crosses and when you walk over one you get to choose an enhanced weapon which is promptly fitted to your Exoframe.

Centurions' graphics are adequate but not impressive: the animation and multi-directional scrolling are good as your character walks about blasting all and sundry.

Fans of the T.V. series or the toys will doubtless find some lasting appeal in this computer game; anyone else is likely to find that it soon becomes tedious. AS

Amstrad Version

Very similar to the Commodore version although the Amstrad graphics are a shade more attractive; they don't have such a blocky look about them. The idea and the gameplay are identical.

VISUAL EFFECTS ■■■■■▨▨

Excitingly cranky but the colour's unappealing

AUDIO ■■■■■■▨

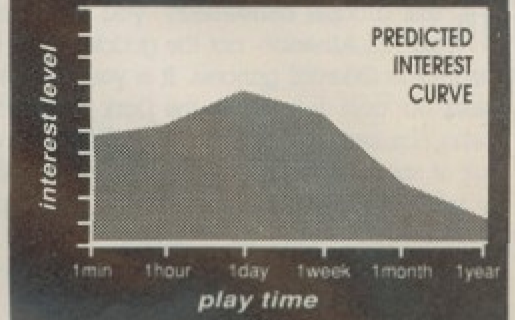
OK effects, and a pleasant tune

IQ FACTOR ■■■▨▨▨▨

You'll need a good memory for keys

FUN FACTOR ■■■■■■■

Takes perserverance to get anywhere interesting



ACE RATING 692

GAME OVER

SUPPLIER **IMAGINE** VERSION TESTED **AMSTRAD**

GREMLA the dictator has gone too far this time, and she must be stopped. As her ex-henchman Arkos, you are the man to do it. You'll have to fight your way through two planets of nasties, booby-traps and rather inconvenient holes in the ground, but that shouldn't worry a fighting man like you.

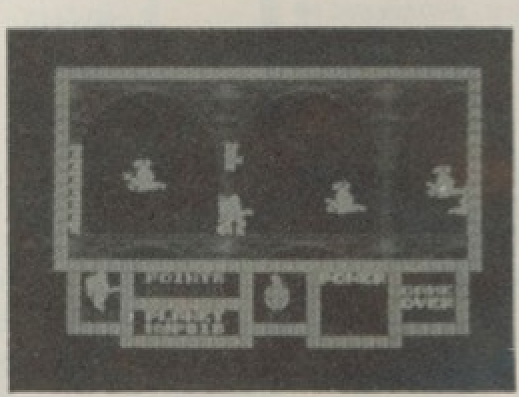
Gameplay on the first planet involves running from left to right, jumping gaps and zapping nasties. You've got a laser and a limited supply of hand grenades to use against the flying, jumping or walking bad guys, some of whom, you might think, look strangely like airborne kangaroos. In fact, they are airborne kangaroos. Fixed gun turrets need multiple laser hits to destroy them, as do the giant monsters/robots that periodically appear to guard the way forward.

Release Box

Spectrum	£7.95cs	OUT NOW
Amstrad	£8.95cs £14.95dk	OUT NOW
C64/128	£8.95 £14.95dk	OUT NOW

Shoot barrels along the way and you'll find useful extras - increased firepower, more grenades, an energy recharge or even a force-field giving you short-term invulnerability.

If you avoid the mines you can still die from the energy drain of taking repeated hits, or from misjudging a jump and falling down a gap. Whatever the cause though, losing a life is a serious matter - and not just because you've only got three of them. Every time you die you get sent back to the start of the game section you're on, and that can undo as much as ten screens of work.



Spectrum: **Serious attribute problems!**

Completing the first part gets you the access code for the separately loaded second planet, an altogether more interesting place. Here there are bouncing monsters, lethal lakes and, most important of all, lifts to other floors. Land mines are the main hazard here.

All of this is very good to look at, with well-drawn sprites and terrific use of colour. The sound isn't quite so inspired but it's still well up to scratch. But compared to stuff like *Green Beret*, *Ghosts'n'Goblins* or the more recent *Exolon*, the first stage of *Game Over* is a bit short on playability.

Things pick up an awful lot on the second planet, but there are are reservations about the game's rough edges. You can walk off a screen straight onto a mine for example, or jump into a situation you don't have room to jump out of - avoidable with practice, but very frustrating. AW

Spectrum Version

Spanish programmers Dinamic may know their Amstrads, but they're clueless when it comes to Spectrum attributes. The colour clashes are enough to make you wince.

C64 Version

Graphics are on the dull side here, but control is the real problem, There's no keyboard option, and the game's dreadfully unwieldy on joystick.

VISUAL EFFECTS ■■■■▨▨▨

Good use of colour and some smooth action

AUDIO ■■■▨▨▨▨

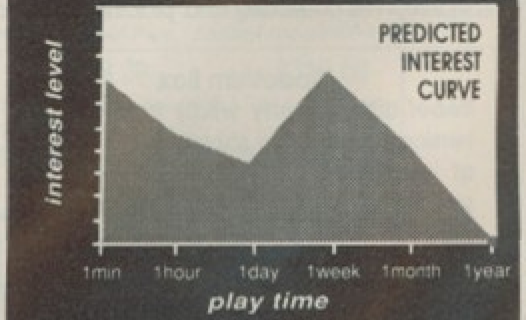
Perky tune and some reasonable effects

IQ FACTOR ■■■▨▨▨▨

Not too taxing

FUN FACTOR ■■■■▨▨▨

Some instant appeal - but can be frustrating



ACE RATING 736

ATHENA

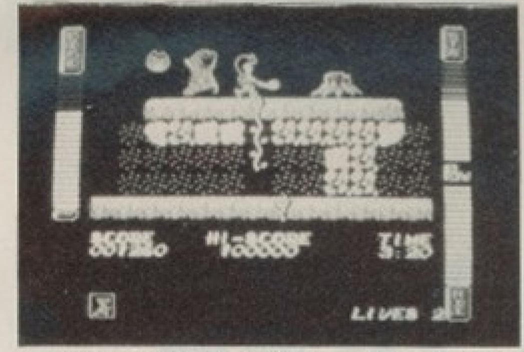
SUPPLIER **IMAGINE** VERSION TESTED **SPECTRUM**

In this arcade conversion you play the part of Athena - not the goddess, but a fearsome Oriental princess. It is your goal to seek out and dismember the Dark Overlord, who has transported you to his realm for a bit of sport. The realm consists of six worlds, each of which you must battle through before you can face the Overlord.

Release Box		
Spectrum	£7.95	OUT NOW
Amstrad	£8.95 cs £14.95 dk	IMMINENT

You have five minutes to complete each of the worlds, each of which takes the form of a multi-level horizontally scrolling landscape with more than a hint of maze about them. Every world has two exits: one guarded by a powerful monster, the other unguarded but usually very difficult to find.

The worlds are filled with a variety of assailants from hooded monks to small potato-like creatures. Contact with any of these will drain your energy - in most cases, very quickly indeed. At the start of the game Athena can only attack by kicking, but after killing a few foes you should discover a cudgel, which Athena can then use to smash her way through rocks and opponents. Hidden inside some of the rocks are special icons which can grant anything from new weapons and armour to winged boots that provide extra height when jumping.



Athena is spoiled by your extremely short life-expectancy. The sheer frequency, number and speed of creatures attacking you means that even when clad in armour and carrying a powerful weapon your life won't last long.

With its well-defined graphics and competent sound this game could have been very addictive; it has animation and features that are potentially engrossing; but it's virtually unplayable.

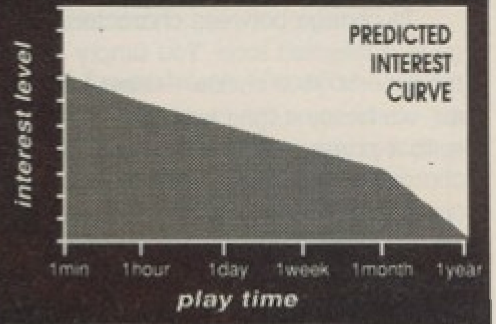
DP

VISUAL EFFECTS ■■■■□□□
Not much colour but very nicely drawn

AUDIO ■■■□□□□
An assortment of Spectrum beeps

IQ FACTOR ■■■□□□□
Maze-type puzzles must be solved

FUN FACTOR ■■□□□□□
Very frustrating



ACE RATING 628

REBEL

SUPPLIER **VIRGIN** VERSION TESTED **SPECTRUM**

'Better to live like a man than die like a slave' might have been an appropriate motto for this game; your aim is simply to attain Freedom, or die in the attempt. *Rebel*'s scenario does a good job of convincing you that your freedom is worth fighting for, your diary entries paint a suitably dispiriting picture of life as a soya plantation worker in the state-controlled agricultural bloc.

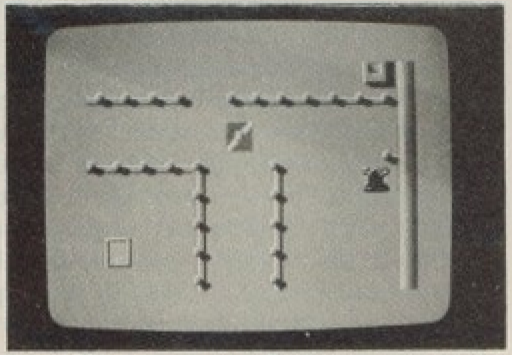
To escape you have to break through a series of sealed compounds in a stolen Crowd Control Vehicle (basically - a tank). This involves collecting and placing them so that a solar beam, when triggered, is diverted to the exit and blasts it open.

Spectrum Box

***Rebel* differs pretty wildly from the C64 version. There's no shooting, either by or at you. The nasties are all small and square to avoid attribute clashes, and move in fixed patterns.The main challenge comes in finding reflectors and working out beam paths within a time limit. There's a time bonus for completing a level, but fast work early on is still essential. Scrolling is smooth, but the window's small and the graphics uninspired. As for gameplay - good at first, but flawed.**

The screen scrolls in four directions as you move about navigating around thewalls, buildings and other obstacles that hinder your progress. Your CCV can shoot in almost any direction (Spectrum owners - read that box!), which is just as well since you're under continual assault from helicopters, planes and a particularly nasty kind of indestructible tank.

Release Box		
Spectrum	£9.95 cass	OUT NOW
CBM 64/128	£9.95 cass	OUT NOW



'Placing the reflectors is a tricky business, requiring a great amount of thought. If you align them wrongly or leave the CCV in the ray path, you'll lose a life when you trigger the solar beam.

The levels are always the same. Once you've worked out the reflector placing and alignment required on a given level, you've cracked it for good. You'll still have to find the reflectors and place them, and they are scattered at random to try and maintain your interest.

With 13 progressively tougher levels, you'd think *Rebel* would hold your attention. It does; but only for a short while.

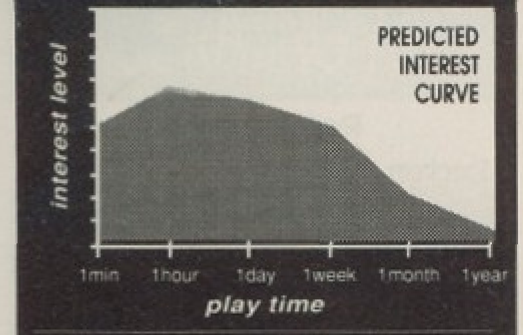
DP

VISUAL EFFECTS ■■■■□□□
Bright (pink helicopters?) to the point of garish

AUDIO ■■■□□□□
Nothing special

IQ FACTOR ■■■□□□□
Reflectors can give you cause for thought

FUN FACTOR ■■■□□□□
Enjoyable to begin with: but not enough challenge



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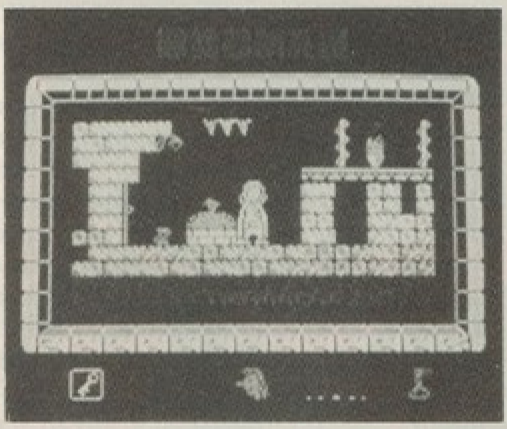
ROCKMAN

SUPPLIER **ALLIGATA** VERSION TESTED **SPECTRUM**



ROCKMAN, as it says on the inlay card, or *Rocman* as it says on the screen, is an arcade style adventure in which your mission is to find the Holy Grail. Your reward is the hand in marriage of a Middle eastern princess plus half of her father's kingdom. Sounds attractive? Well, read on.

A window opens on the screen to show you standing at the start of your journey. Using a joystick or keys to go left-right, jump and pick-up you wander through the game area, which is of the two dimensional, viewed side-on variety. Along the way you will find various keys which have to be picked up to enable you to gain access to other locations. You only have one life in this game but you are allowed to make three mistakes. A portrait of your good self at the base of the screen changes colour with each mistake - from yellow, through green to red before you die on your fourth mistake.

Hearts, found throughout the game, should be collected as they allow a mistake to be made without your image turning colour.

Also to be collected are twelve goblets, each of which will get a part of the shield you have to complete to finish you task.

Sound is used well, with an interesting title tune and nice walking noises as Rockman ambles on his merry way - leave Rockman alone for a couple of minutes and he turns to face you before doing a little dance until you press a key and resume play. Graphics, too, are suitably cute.

Rockman is an enjoyable and humourous game with enough fun to give you a run for your money. AS

Release Box

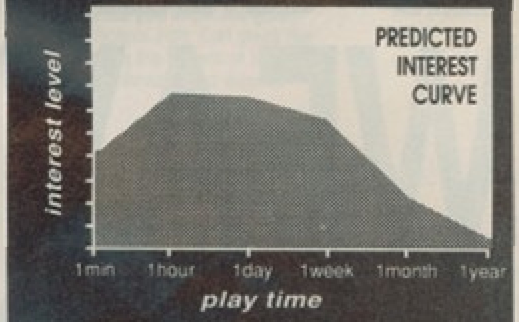
Spectrum	£1.99 cs	OUT NOW

VISUAL EFFECT ■■■□□□□□
Some nice little touches

AUDIO ■■■□□□□□
Jolly effects in places

IQ FACTOR ■■■■■■□□
A few tricky teasers

FUN FACTOR ■■■□□□□□
Very enjoyable for its life-span



ACE RATING 702

HYBRID

SUPPLIER **STARLIGHT** VERSION TESTED **AMSTRAD**

A long time before the state came into existence the aliens came to earth. Where they came from nobody knew but they carved a swathe of destruction across the earth the likes of which had never been seen. Scientists eventually managed to contain the aliens in an escape-proof galactic gaol; but they were unable to destroy them.

Your task then is to destroy the four remaining aliens. To help, you have three half-droid, half-organic beings called Hybrids – a robot, a xylon and a brain - which you must control separately and guide through a complex of some 200 rooms. Find one of the four rooms in the complex that allows you to join the droids into one monster droid and you are transferred automatically to a room containing one of the aliens which you must destroy. This has to be done four times in all, with the aliens getting meaner everytime.

So, you must wander the complex avoiding or killing the assorted smaller aliens therein. You control each droid individually and can switch between them at any time. The droids have different abilities, which means you can't complete the game by using just the one droid. The robot, for example, is a mean fighting machine able to take out enemy gun emplacements and major obstacles whereas the xylon can gain access to bridges across the otherwise impassable electric currents which bar your way.

The large game area and the strategy elements make this game different from the average shoot-em-up-cum-maze game but unfortunately the idea and game concept just haven't been done justice on the programming side. Ignore the poor graphics and dull sound (if you can) and the game does grow on you, but it's still not addictive and you'll need plenty of determination to complete it. AS

Release Box

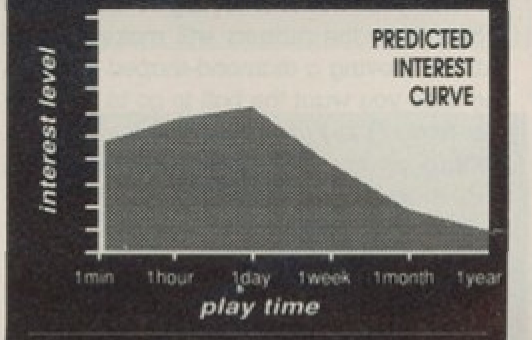
Amstrad	£9.99 cs £14.95 dk	OUT NOW
Spectrum	£8.99 cs	IMMINENT
C64/128	£9.99 cs £14.99 dk	IMMINENT

VISUAL EFFECTS ■■□□□□□□
Blocky and uninspired

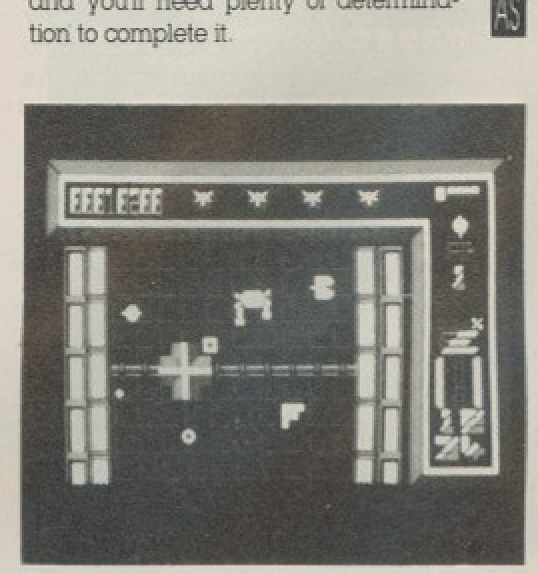
AUDIO ■■□□□□□□
Dull and lifeless

IQ FACTOR ■■■■□□□□
Gets more tactical if you perservere

FUN FACTOR ■■■□□□□□
Grows on you. but doesn't grab you



ACE RATING 675



EARL WEAVER BASEBALL

SUPPLIER **ELECTRONIC ARTS** VERSION TESTED **AMIGA**

'EARL Weaver' – as we all know – 'is one of the winningest managers in baseball history.' The long career of this sports legend is now crowned by the arcade/strategy computer game that bears his name. If you're the least bit interested in the game, or think you could become so, then it could provide you with hours of engrossing entertainment.

Baseball – like our very own cricket – is one of those games whose aficionados delight in a bizarre jargon and a morass of statistics, while professional coaches are masters of deep strategy. These characteristics are a boon for the game designer; the game can be as simple or as complicated as you like, from relatively straightforward arcade baseball action up to the construction of a stadium and the management of a whole league.

In *EW Baseball* your simplest option is the Play Ball feature, which lands you straight in to a game. The screen displays the diamond (roughly equivalent to the pitch). A strip down the right hand side shows the pitcher and the batter in close-up, while the remainder of the screen shows the rest of the diamond with the fielders and other batters trying to get round the rest of the bases.

You can control the game with mouse, joystick or keys. Batting is a matter of holding down the button/key and releasing it at the right time to connect with the ball; timing your swing in relation to the kind of ball you're getting is the tricky bit here, and it requires quite a bit of practice to hit the thing at all. Pitching is rather more complicated, in that you have a choice of delivery; you can chuck it slow, medium or fast, straight, curving left or curving right. Throwing the ball you intend is a question of being pretty nifty with your mouse, joystick or keys.

If you're pitching you also have to control your fielders, trying to anticipate which base the runners will make for and quickly moving a diamond-shaped cursor to the base you want the ball to go to. If you're the batting side you have the option of getting your men to 'steal' – sneak – from base to base while the pitcher is throwing.

If you get in to trouble with your gameplan then, at the touch of a button, ol' Earl is ready to give you advice from his position in the dugout. It may not mean a lot to you – 'Bunt for a base hit', for instance – but it's nice to know it's there. Other options include conferences on the mound (Earl checks out the pitcher), slow-motion action replays, and a radar read-out of the pitching speed. You can also at any stage get the statistics for any player, but this is one strictly for those in the know.

This arcade section is the simplest part of the game but is the basis of the more complicated sections. When you've absorbed a bit more of Earl's wisdom you may want to go on to manage teams, buy and sell players, construct a team of all-time greats, create and run your own league or even get into stadium construction.

Earl Weaver Baseball has what it takes to keep you playing over a long period of time; it's rather like a cross between *Football Manager* and *Graham Gooch's Test Cricket* that has come out of the processor as a baseball game. The Amiga's graphics are adequately used – there's some neat animation on the pitching/batting – but it's not a visually stunning game. Sound, though, is impressive, from the theme tune through the digitized speech up to the continual background noise from the crowd.

Unfortunately for the UK consumer Electronic Arts have thrown us a curve in the packaging by not including any explanation of the principles or rules of baseball; so if you don't know the game already, or at least know somebody who does, you could struggle with the program. PC

Release Box

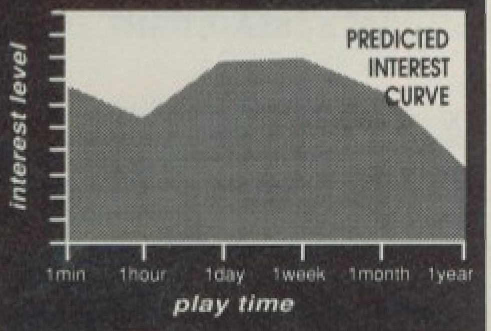
Amiga		£24.95 dk	OUT NOW
C64/128	£9.95 cs	£16.95dk	DEC 87
IBM PC		£24.95 dk	OCT 87

VISUAL EFFECTS ■■■□□□□
Pleasant, but weak for an Amiga.

AUDIO ■■■■■□□
Great crowd sounds, shame about the announcer.

IQ FACTOR ■■■■■■□
You'll need to use your head, as well as Earl's advice.

FUN FACTOR ■■■■□□□
Can be a simple pitch 'n hit if you want.

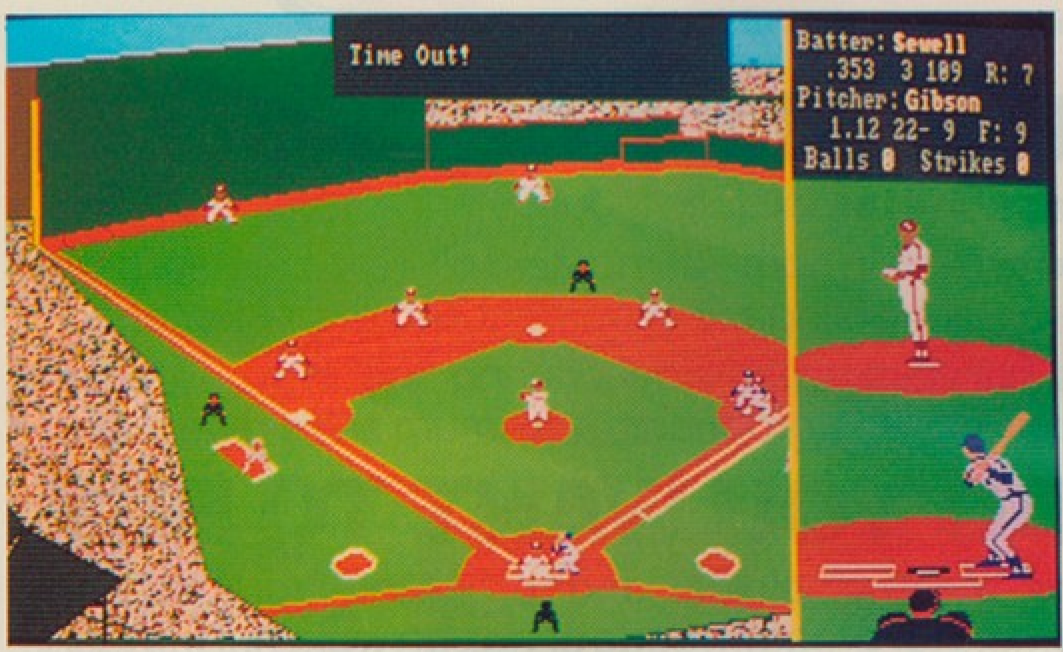


ACE RATING 843

Play the infield normal. Early in the game your concern is the stolen base.

Hold Baker

I don't have a hit & run sign. I believe it's the worst play in baseball.



Time Out!

Batter: Sewell
.353 3 109 R: 7
Pitcher: Gibson
1.12 22- 9 F: 9
Balls 0 Strikes 0

Left: **The diamond, with pitcher and batter in close-up.** Top right: **Sage words from veteran Earl - but they won't mean much unless you know the game already.** Bottom right: **Earl gives the visiting team the benefit of his many years experience in the dugout.**

LAZER FORCE

SUPPLIER **CODEMASTERS** VERSION TESTED **C64**

TAKE elements from some great arcade classics like *Moon Cresta*, *Centipede* and *Salamander*, mix them with some vertically-scrolling zapping, add 32 levels each with four sections, sell it at £1.99 and you have *Lazer Force* – excellent entertainment that could more than hold its own even at full price.

You start the game travelling up a downward-scrolling screen with borders of fire burning on either side of you. Suddenly a tower of flame shoots out and enemy ships rain down and spin up from behind you. Survive all this and you've completed section one of the first wave. The first is the only section of the game to change in any great way as the waves progress but, that said, it would in itself form an extremely good game.

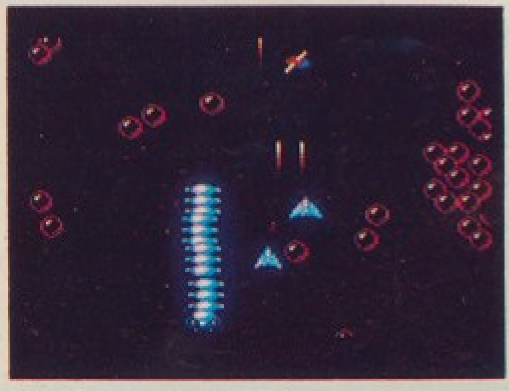
The second section is a *Centipede*-type shoot-em-up in which you must destroy four of the WOP pods that drop from the top of the screen while fending off the vicious caterpillars and a host of other nasties. Screen five is the *Moon Cresta* docking sequence all over again; you must let your ship descend the screen and dock very precisely and gently with a waiting refuelling ship. Lastly you must rush your ship up a twisting corridor as fast as possible in a race against the clock. The further you get before you crash or the time runs out the more you score, but crashing here won't lose you a life.

Each wave of this game presents you with a new challenge and a host of new enemy attackers, all of which are well defined and very smooth movers. Original it certainly isn't, but it's highly playable and well worth the £1.99 asking price. DP

Release Box

C64/128	£1.99 cs	DEC 87

No other versions planned at present



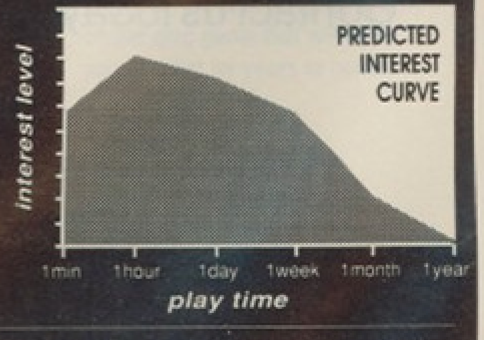
Blasting the baddie, budget style. Just one of the game's many varied stages. Watch out for the bubbles!

VISUAL EFFECTS ■■■■■□□
Lots of great software sprites

AUDIO ■■■□□□□
Well up to scratch for budget

IQ FACTOR ■□□□□□□
Brains? Who needs 'em?

FUN FACTOR ■■■■■□□
Good stuff – very playable



ACE RATING 779

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ACE BUYS

50 games you've got to have

There are some games that any self-respecting micro owner really ought to have - and that anyone new to computer entertainment ought to think seriously about getting. So here they are - the 50 games that we at ACE reckon are indispensable to a connoisseur's collection.

Programs are listed alphabetically, with their publishers, the machines we're recommending them for and their prices on cassette and/or disk. If a machine isn't listed then it means either that it isn't available on that format or that we can't recommend it. Look out, too, for versions of some of these games about to appear on other formats - particularly ST and Amiga.

ACADEMY

CRL

Spectrum	£9.95 cs
CBM	£9.95 cs, £14.95 dk
Amstrad	£9.95 cs, £14.95 dk
Atari ST	£19.95 dk
Amiga	£19.95 dk

A flight simulator/shoot-em up that is incredibly smooth and well put together. The attention to detail is impeccable as you design your skimmer craft, and set off on the first of twenty hair raising missions as a space cadet at the Galcorp Academy.

ARCHON

Ariolasoft (Electronic Arts)

CBM	£9.95 cs

The perfect balance of skill and strategy, *Archon* resembles a type of Chess in which mythical beasts fight it out in order to gain the five glowing power points, or annihilate the opposing side. Each monster has its own strengths, powers and weaknesses and each side also has a commanding wizard with an assortment of spells at its disposal. Don't be fooled by the dull-looking graphics; this is an exciting and challenging game that will keep your interest for years to come.

ARKANOID

Imagine

Spectrum	£7.95 cs
CBM	£8.95 cs, £12.95 dk
Amstrad	£8.95 cs, £14.95 dk
Atari ST	£14.95 dk

By far the best micro version of the arcade classic *Breakout.*
The game concept is simple

SIDEWIZE

Sidewize...the ultimate shoot-em-up...incredible weapon pick-up systems...awe-inspiring arcade action..."Sidewize is the slickest, no-messing shootout in a long, long time" wrote Sinclair User...don't mess with the others, try messing with Sidewize.

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FIREBIRD

Firebird Software
First Floor, 64-76 New Oxford St.
London WC1A 1PS

SPECTRUM CASSETTE
£7.95
COMMODORE CASSETTE
£8.95
COMMODORE DISK
£12.95

enough: the player controls a bat at the base of the screen, which can be whizzed left and right. The object is to keep a small ball in play, and direct its flight path to destroy a formation of 'bricks', which are displayed horizontally toward the top of the screen. Destroy all the bricks and progress to the next of the 33 screens. *Arkanoid's* clever extra features and the feeling of sheer frustration it induces make it most addictive .

BARBARIAN
Palace

Spectrum	£9.99 cs
CBM	£9.99 cs, £12.99 dk
Amstrad	£9.99 cs, £12.99 dk

Best of the all-kicking, chopping, jumping combat games to date. The player controls a large on-screen character with sixteen possible moves. You can opt to fight the computer or play simultaneously against a friend. The flicker-free animation is the best of the combat crop. Extremely gruesome and with a wicked sense of humour, it's a must.

BOULDERDASH
Prism Leisure Corporation

Spectrum	£2.99 cs
CBM	£2.99 cs
Amstrad	£2.99 cs

One of the most original and addictive computer games ever written, *Boulderdash* sets you the task of collecting jewels which are buried in underground caverns, protected by various configurations of rocks and earth. Digging your way round it sometimes seems as if you need an O Level in Physics - that might help but it isn't really necessary. *Boulderdash* grips you right from the start and lets loose very slowly indeed.

BOUNDER
Gremlin

Spectrum	£7.95 cs
CBM	£9.95 cs, £12.95 dk
Amstrad	£8.95 cs, £13.95 dk

A great arcade bounce-em-up, and very addictive too. You guide a ball as it bounces from one platform to another, high above the vertically scrolling landscape. Land on marked squares and you can stay aloft longer or gain a mystery bonus. Fall in a gap or hit one of the game's many nasties, however, and you'll lose a life. Bonus bouncing sections at the end of each level help vary the pace, and those tough gaps really keep you coming back for more. Bright, witty graphics, great music - and it's so playable!

CHESS
Psion

Atari ST	£24.95 dk
IBM PC	£24.95 dk
Macintosh	£24.95 dk

Excellent chess game for 16-bit machines, with 3D view option and a host of other features. Best bet on 8-bit machines is the very strong*Colossus Chess* from CDS, while *Chessmaster 2000* from Electronic Arts on the 16-bit side is also worth a gander.

DECATHLON
Firebird Silver

Spectrum	£1.99 cs
CBM	£1.99 cs
Amstrad	£1.99 cs

The toughest test in athletics becomes the test of a tough joystick as you 'waggle' furiously to run, jump and throw your way to gold. Exhausting but exhilerating, this Decathlon - originally published by Activision - just pips Ocean's Daley Thompson-endorsed product for the honours. Also provides great two-player competition.

DROPZONE
US Gold/Americana

CBM 64	£2.99 cs

This *Defender* clone leaves the rest standing; breathtaking graphics, speed and unrivalled smoothness of action. \A filled in scrolling backdrop packed with alien assailants sets the scene as you rush to collect the mindless humanoids and deposit them at your Dropzone before they are captured and transformed into killer mutants. A snip at £2.99

EIDOLON
Activision

CBM	£9.95 cs, £14.95 dk
Amstrad	£9.95 cs, £14.95 dk

The best of the Lucasfilm fractal graphic games, and very impressive it is too. The Eidolon is a craft you use to explore a network of tunnels, evading or attacking the different creatures you find there. You're searching for jewels, which will give you access to the game's higher levels. You also need to pick up fireballs to use as ammo against monsters blocking your path - particularly the dragon guarding the route to the next level. Great graphics and first-rate animation.

ELITE
Firebird

Spectrum	£14.95 cs
CBM	£14.95 cs, £17.95dk
Amstrad	£14.95 cs, £12.95dk

One of the first space games to use vector graphics, and still one of the best. It's a shooting and trading effort several galaxies wide, with plenty of variety to the gameplay. You can trade legal goods in (relatively) safe systems, or run the gauntlet of pirates in the galaxies' danger spots with your hold full of contraband. Either way there's a nice line in zero-G dogfighting, and as big a task as you'll find anywhere.

ENCOUNTER
Novagen

CBM64	£9.95 cs, £12.95dk

A form of 3D Battle Zone - a tank-blasting exercise - with solid though undetailed graphics. Very fast and with a multitude of different enemy craft, the game has eight levels of difficulty with a frustratingly hard warp phase between each one. Unceasing action all the way.

EXOLON
Hewson

Spectrum	£7.95 cs
CBM 64	£8.95 cs, £12.95 dk
Amstrad	£8.95 cs, £14.95 dk

A graphically superb horizontally scrolling shoot-em-up in which you run, duck and jump your way along a planet's surface blasting away at alien defences. A gun and a missile launcher are used to blast the foes, but if things are still too tough then you can grab an exoskeleton for extra protection and fire power.

GAUNTLET
US Gold

Spectrum	£8.99 cs
CBM	£9.99 cs, £14.99 dk
Amstrad	£9.99 cs, £14.99 dk
Atari ST	£24.99 dk

The famous multi-player arcade sensation makes it to home computer format still mostly intact. You and a friend choose to be the Warrior, Wizard, Valkyrie or Elf and rush around crowded dungeons in search of treasure and magical potions, hacking away monsters as you go. Fast and frenetic fun - but the ST's scrolling leaves something to be desired.

HEAD OVER HEELS
Ocean

Spectrum	£7.95 cs
CBM	£8.95 cs, £12.95 dk
Amstrad	£8.95 cs, £14.95 dk

3-D exploration reaches its peak with this huge, intricate masterpiece. You play two characters - Head and Heels - as you search for the crowns that will free the Galaxy. The puzzles can get very tricky indeed, and you'll often have to split Head and Heels up to use their different abilities. The game's 300 locations are wittily drawn, and the animation's excellent throughout. A real classic.

IKARI WARRIORS
Elite

Amstrad	£8.95cs, £14.95 dk

The best of the *Rambo*-type gun-em-downs. Run up the vertically scrolling screen and gun down or grenade anything and everything. Capture a tank and you can run down the opposing troops as well. *Ikari Warriors* is slaughter on a grand scale, with slick graphics and an enjoyable two-player option.

IMPOSSIBLE MISSION
US Gold

CBM	£9.95 cs and dk

An all-time great arcade adventure which still looks original a good three years after its first appearance. As the animated hero you run, leap and somersault around a network of tunnels, trying to seek out and destroy the evil Professor Elvin Mindbender. The many rooms contain devices which may either aid or hinder you in your mission; it's not quite impossible, but very nearly. Also features some neat synthesised speech.

INTERNATIONAL KARATE
System 3

CBM	£6.50 cs,£12.99 dk
Atari ST	£19.99 dk

Best of the many karate games now available, with one and two-player options and a possible 16 moves. The game's "International" in that each round takes place against a different exotic backdrop - Venice, Sydney Opera House etc. Good choppin', kickin' stuff.

LEADERBOARD
US Gold

Spectrum	£8.99 cs
CBM	£9.99 cs, £14.99 dk
Amstrad	£9.99 cs, £14.99 dk

A golf simulation that will provide hours of fun on the fairway. Using your skill and judgement - and you realy do have to use them - you play each course to the best of your ability. Select the wrong club and you could end up way over par.

LIGHTFORCE
Gargoyle

Spectrum	£7.95 cs
CBM	£8.95 cs, £13.95 dk
Amstrad	£8.95 cs, £13.95 dk

A fast vertical-scrolling shoot-em up. And on the Spectrum - miraculously - not a colour clash to be seen. Basically, it's a question of shooting the descending aliens and destroying the installations. varied aliens attacking in different formations make this a demanding game which can easily become a habit.

LORDS OF MIDNIGHT
Beyond

Spectrum	
CBM	
Amstrad	

A strategy-cum-adventure game of truly epic proportions. The marauding forces of evil are on the warpath, and you've got to stop them. This means either gathering allies, forming up armies and marching off into battle, or sending a small party of adventures off to destroy the source of the bad guys' power - or some combination of the two. It's a vast game - 4000 different locations - and games can last days. Enthralling stuff!

MATCHDAY
Ocean

Spectrum	£7.95 cs
CBM	£8.95 cs

Definitely *the* football game on micros; magnificent animation, great gameplay, with vicious and skilful computer opponents.

MARSPORT
Gargoyle

Spectrum	£9.95 cs
Amstrad	£9.95 cs, £13.95 dk

Take the part of Commander John Marsh, Earth's last hope in the struggle against the Sept in this arcade adventure packed with puzzles to solve and aliens to zap. The 3-D animation is great as the main character wanders around the enormous space station on which the game is set. Like the earlier Gargoyle games *Tir na Nog* and *Dun Darach* this is good, thought-provoking stuff.

MERCENARY
Novagen

CBM64	£9.95 cs, £12.95 dk
Amstrad	£9.95 cs, £19.95 dk

Fly around a city of strange buildings and explore the maze of underground passages all presented to you in fast, smooth vector graphics. Your goal is to escape from war-scarred Targ by buying, stealing or earning an Interstellar Ship. Join forces with either of the warring Paliars or Mechaniods or play them off against each other.

PAPERBOY
Elite

Spectrum	£7.95 cs
CBM	£8.95 cs, £14.95 dk
Amstrad	£9.95 cs, £14.95 dk

Thrilling conversion of the coin-op hit. Mount your BMX, don the baseball cap and set off to make your daily delivery of newspapers (Washington Post rather than The Sun). Lots of obstacles and a BMX training course at the end of each street mean that you'll keep pedalling for quite a while.

PITSTOP 2
Epyx

(Available on Epyx Epicscompilation)

CBMt	£9.95 cs, £14.95 dk

Thrilling racing game where the screen is split into two and you can race the computer or a human. Lots of different Grand Prix circuits, tyre blow-outs and of course the all important pit-stops guarantee to give you hand cramp and your brain a real racing treat.

POWERPLAY
Arcana

Amstrad	£8.95 cs, £14.95disk
CBM	£8.95 cs, £14.95disk

Trivial Pursuit may be the best-selling game of the best-selling quiz, but we reckon that if you want to try out your general knowledge you'd be better off with this original and challenging combination of strategy game and quiz - all graphically very pretty in its setting on Mount Olympus, home of the Gods.

PLUTOS
Tynesoft

Atari ST	£14.95 dk

Excellent vertical-scrolling arcade game, with arcade-quality graphics. Ilt's a difficult mission, but the two-player co-opertion option gives you a better chance. Just pips Microdeal's very good *Goldrunner* for a recommendation on the grounds of superior playability.

PSI-WARRIOR
Beyond

CBM 64	£9.95 cs

Monsters of pure mental energy are taking over. You are the Psi-Warrior, sent in to the silo to seek out the Source of the creatures and destroy it. Zoom, bounce and leap up and over ramps and pits on your magnetic surf-board as you net and absorb the Psi and Id creatures. Excellent control and a huge playing area make this a real Commodore classic.

RANARAMA
Hewson

Spectrum	£7.95 cs
CBM	£8.95 cs, £12.95 dk
Amstrad	£8.95 cs, £14.95 dk

Often compared to *Gauntlet*, this spells-'n'-blasting epic stands out for its beautifully paced gameplay. In frog form, you have to clear the nasties out of several levels of dungeon. Your main targets are evil magicians - defeat them and you can upggrade your magical powers to help blast through the hordes of other nasties. As your spells get meaner you can brave the lower dungeon levels, but be warned - they're very tough indeed!

REBELSTAR
Firebird

Spectrum	£1.99 cs
CBM	£1.99 cs
Amstrad	£1.99 cs

A skirmish wargame for one or two players in which you take charge of ten or so raiders in an attempt to destroy the Isaac computer at the centre of Moonbase delta. A neat, tidy ordering system makes this an easy game to pick up and play - but it's certainly no pushover.

SCRABBLE
Leisure Genius

Spectrum	£9.95 cs
CBM	£12.95 cs £14.95 dk
Amstrad	£9.95 cs £14.95 dk
IBM PC	£24.95 dk

The hugely popular word game very successfully translated on to the micro. Very fast, excellent display and a surprisingly large vocabulary. Will give even a strong humanoid a tough game.

THE SENTINEL
Firebird

Spectrum	£9.95 cs
CBM	£9.95 cs, £14.95dk
Amstrad	£9.95 cs, £14.95dk

Bizarre and compelling strategy game played over the chequered surface of a planet dominated by The Sentinel. Essentially you have to absorb energy while trying to stop the Sentinel absorbing yours. A clear brain and a fast trigger finger are both necessary in this original and big - 10,000 possible landscapes - game.

SORCERY
Virgin

CBM	£8.95 cs
Amstrad	£8.95 cs

As near to graphic perfection as most games get, this arcade adventure's no slouch on the gameplay side either. As a sorceror on the side of good you have to fly round the landscape - dungeons, waterfalls, castle battlements etc - freeing your imprisoned companions. Scattered around you'll find weapons to dispose of nasties and keys to help you explore further, but you'll have to plan their use carefully. Good to listen to, wonderful to look at and great to play.

SPELLBOUND
Mastertronic

Spectrum	£2.99 cs
CBM	£2.99 cs
Amstrad	£2.99 cs

You control a small character - Magic Knight - in his quest to free Gimbal the Wizard. This is a puzzle-packed arcade adventure full of character and wit. At this price it's a real bargain; and there are three further games - *Knight Tyme*, *Finders Keepers* and *Stormbringer* - in the Magic Knight series.

SYSTEMS ARCHITECTS

Title	Supplier	Machine	RRP	Systems'
Borrowed Time	Activision	ST/Amiga	24.95	19.95
Basketball	Activision	ST/Amiga	24.95	19.95
Golf	Activision	Amiga	24.95	19.95
GFL Football	Activision	ST/Amiga	24.95	19.95
Hacker	Activision	ST/Amiga	24.95	19.95
Hacker II	Activision	ST/Amiga	24.95	19.95
Intern. Karate	Activision	ST	19.95	16.95
LCP	Activision	ST/Amiga	34.95	28.95
Music Studio	Activision	ST/Amiga	34.95	28.95
Portal	Activision	Amiga	34.95	28.95
Shanghai	Activision	ST/Amiga	24.95	19.95
Tass Times	Activision	ST/Amiga	24.95	19.95
Demolition	Anco	Amiga	9.95	8.95
Karate King	Anco	ST/Amiga	9.95	8.95
Space Battle	Anco	Amiga	9.95	8.95
Emerald Mines	Anco	Amiga	9.95	8.95
Phalanx	Anco	Amiga	9.95	8.95
Challenger	Anco	Amiga	9.95	8.95
Cruncher Factory	Anco	Amiga	9.95	8.95
Tee-up	Anco	ST	14.95	12.95
7 Cities	Ariolasoft	Amiga	29.95	24.95
Archon	Ariolasoft	Amiga	29.95	24.95
Archon II	Ariolasoft	Amiga	29.95	24.95
Adventure Const.	Ariolasoft	Amiga	29.95	24.95
Artic Fox	Ariolasoft	ST/Amiga	29.95	24.95
Marble Madness	Ariolasoft	Amiga	29.95	24.95
One on One	Ariolasoft	Amiga	29.95	24.95
Instant Music	Ariolasoft	Amiga	29.95	24.95
Skyfox	Ariolasoft	ST/Amiga	29.95	24.95
Super Huey	Ariolasoft	ST/Amiga	19.95	16.95
Bridge Player	C.P.	ST	19.95	16.95
Chessmaster	C.P.	ST/Amiga	45.95	34.95
Amiga Karate	Eidersoft	Amiga	19.95	16.95
ST Karate	Eidersoft	ST	19.95	16.95
Pro-Sprite	Eidersoft	ST/Amiga	39.95	32.95
Pro-Sound	Eidersoft	ST	57.50	45.00
1st Word +	Electric	ST	79.95	65.95
Q Ball	English	ST	19.95	16.95
Jewels of Dark.	Firebird	ST/Amiga	19.95	16.95
The Pawn	Firebird	ST/Amiga	24.95	19.95
Guild of Thieves	Firebird	ST/Amiga	24.95	19.95
The Golden Path	Firebird	ST	19.95	16.95
Silicon Dreams	Firebird	ST/Amiga	19.95	16.95
Starglider	Firebird	ST/Amiga	24.95	19.95
Typhoon	Gremlin Graphics	ST	24.95	19.95
Trailblazer	Gremlin Graphics	ST	24.95	19.95
Faerytale	Haba	Amiga	49.95	39.95
BallyHoo	Infocom	ST/Amiga	29.95	24.95
Bureaucracy	Infocom	ST/Amiga	34.95	29.95
Cutthroats	Infocom	ST/Amiga	29.95	24.95
Deadline	Infocom	ST/Amiga	29.95	24.95
Enchanter	Infocom	ST/Amiga	29.95	24.95
Hitch Hiker	Infocom	ST/Amiga	29.95	24.95
Infidel	Infocom	ST/Amiga	29.95	24.95
Leather Godess	Infocom	ST/Amiga	29.95	24.95
Mind Forever	Infocom	ST/Amiga	34.95	29.95
Moonmist	Infocom	ST/Amiga	29.95	24.95
Planetfall	Infocom	ST/Amiga	29.95	24.95
Seastalker	Infocom	ST/Amiga	29.95	24.95
Sorcerer	Infocom	ST/Amiga	29.95	24.95
Spellbreaker	Infocom	ST/Amiga	29.95	24.95
Starcross	Infocom	ST/Amiga	29.95	24.95
Stationfall	Infocom	ST/Amiga	29.95	24.95
Suspect	Infocom	ST/Amiga	29.95	24.95
Suspended	Infocom	ST/Amiga	29.95	24.95
Trinity	Infocom	ST/Amiga	34.95	29.95
Witness	Infocom	ST/Amiga	29.95	24.95
Wishbringer	Infocom	ST/Amiga	29.95	24.95
Zork I	Infocom	ST/Amiga	29.95	24.95
Zork II	Infocom	ST/Amiga	29.95	24.95
Zork III	Infocom	ST/Amiga	29.95	24.95
Invsi-Clue Books	Infocom	N/A	6.95	5.95
Altair	Infogrames	ST	19.95	16.95
Crafton & Xunk	Infogrames	ST	19.95	16.95
Eden Blues	Infogrames	ST	19.95	16.95
Prohibition	Infogrames	ST	19.95	16.95
TNT	Infogrames	ST	19.95	16.95
McAdam Bumper	Infogrames	ST	19.95	16.95
Colourspace	Llamasoft	ST	19.95	16.95
Outcast	Mastertronic	ST	9.95	7.95
Ninja Mission	Mastertronic	ST	9.95	7.95
Airball	Microdeal	ST	24.95	19.95
Cards	Microdeal	ST	19.95	16.95
Goldrunner	Microdeal	ST/Amiga	24.95	19.95
Jupiter Probe	Microdeal	ST/Amiga	24.95	19.95
Karate Kid II	Microdeal	ST/Amiga	24.95	19.95
Silent Service	Microprose	ST/Amiga	24.95	19.95
Ultima III	Microprose	ST/Amiga	24.95	19.95
Balance of Power	Mirrorsoft	ST/Amiga	39.95	32.95
Defend. of Crown	Mirrorsoft	Amiga	29.95	24.95
Deja Vu	Mirrorsoft	Amiga	29.95	24.95
Sinbad	Mirrorsoft	Amiga	29.95	24.95
S.D.I.	Mirrorsoft	ST/Amiga	29.95	24.95
Art Director	Mirrorsoft	ST	49.00	39.00
Film Director	Mirrorsoft	ST	59.00	49.00
Fleet Street	Mirrorsoft	ST	115.00	95.00
Hades Nebula	Nexus	ST	19.95	16.95
Mercenary Comp.	Novagen	ST	24.95	19.95
Arkanoid	Ocean	ST	14.95	11.95
Eagles' Nest	Pandora	ST	TBC	TBC
Deep Space	Psygnosis	ST/Amiga	34.95	29.95
Arena / Brattacus	Psygnosis	ST/Amiga	34.95	29.95
Barbarians	Psygnosis	ST/Amiga	24.95	19.95
Sound Digitiser	Robtek	Amiga	49.95	39.95
Hollywood Poker	Robtek	ST/Amiga	19.95	16.95
Swooper	Robtek	ST/Amiga	19.95	16.95
Extensor	Robtek	ST/Amiga	19.95	16.95
Liberator	Tynesoft	ST	12.95	9.95
Mousetrap	Tynesoft	ST	14.95	11.95
Plutos	Tynesoft	ST	14.95	11.95
Timeblast	Tynesoft	ST	9.95	7.95
Leaderboard	US Gold	ST/Amiga	24.95	19.95
Tourn. Leader	US Gold	ST/Amiga	9.95	8.95
Mean 18	US Gold	ST/Amiga	29.95	24.95
Metrocross	US Gold	ST	24.95	19.95
Phantasie I	US Gold	ST	24.95	19.95
Phantasie II	US Gold	ST	24.95	19.95
Gauntlet	US Gold	ST	24.95	24.95
Hardball	US Gold	ST	24.95	19.95
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Roadrunner	US Gold	ST	24.95	19.95
Roadwar 2000	US Gold	ST/Amiga	24.95	19.95
Colon. Conquest	US Gold	ST	24.95	19.95
Altern. Reality	US Gold	ST	24.95	19.95
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10th Frame	US Gold	ST	24.95	16.95
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SPINDIZZY

Electric Dreams

Spectrum	£9.99 cs
CBM	£9.99 cs, £14.99 dk
Amstrad	£9.99 cs, £14.99 dk

Tremendous stuff - steer your spinning top over tough obstacles and collect jewels, against a fiendish time-limit. The good-looking game landscape is a vast system of ramps, towers, catwalks and trampolines surrounded by lethal drops - and NO safety rails. There are floor switches to activate lifts and bridge gaps, but tripping them in the right order can be harder than it looks. A few bad guys and a lot of nice touches, but the exploration's the thing.

SPLIT PERSONALITIES

Domark

Spectrum	£7.95cs
Amstrad	£8.95cs , £14.95 dk

Dashed clever and infuriatingly addictive puzzle, loosely based on the Spitting Images TV prog. The idea is to reconstruct a famous face from 20 puzzle pieces before your brief span of time runs out. As you rack your brains to put the pieces together a variety of booby traps and bonuses appear for you to dispose of or utilise as you can. Original, witty and very compulsive.

SPY HUNTER

US Gold

Spectrum	£7.95 cs
CBM	£9.99 cs, £14.99 dk

Race along the vertically-scrolling road shooting and knocking the enemy cars out of your path, but be careful not to harm the innocent motorists. Alternate from car to boat and back again as your change from river to road collecting new weapons from you backup truck along the way. Excellent conversion of the arcade classic.

SPY VS SPY

Beyond

Spectrum	£9.95 cs,
CBM	£9.95 cs, £14.95dk
Amstrad	£9.95 cs, £14.95dk

It's the spies from MAD magazine up to their old tricks. The action takes place in an embassy where the spies compete to find a variety of objects, put them in a bag and escape in an airplane. Each spy has a variety of traps he can set in order to delay the other's progress, but be careful they don't backfire.

STARGLIDER

Rainbird

Spectrum	£14.95 cs
CBM	£14.95 cs, £17.95dk
Amstrad	£14.95 cs, £19.95dk
Atari ST	£24.95 dk
Amiga	£24.95 dk

Starglider is a shoot-'em-up cum strategy game boasting vector graphics at their very best. The screen is essentially your view from the cockpit, your objective is destroy the 'Starglider', flagship of the Egron forces who have invaded your homeland Novenia. Standard issue scenario, but an outstanding game.

SUPER PIPELINE

Mastertronic

CBM	£1.99 cs
Amstrad	£1.99 cs

Originally programmed and marketed by Taskset, this is a strange and original game in which you rush around attempting to fix the bursts in a series of pipes under attack from a variety of objects among which are numbered screwdrivers, plumbers' plungers and - very strange, this - a lobster. Gets very frantic indeed.

THANATOS

Durell

Spectrum	£9.95 cs
CBM	£7.95 cs, £9.95dk
Amstrad	£9.95 cs, £11.95dk

Control Thanatos the dragon as he rescues Eros the enchantress and flies off to find the book of spells and the magic cauldron. The large and smoothly-animated dragon makes this game a pleasure to behold. Other mythical creatures attack you on your journey, including a two headed dragon, but most of your attackers are human and a great pleasure to fry with your fiery breath or mangle with your claws.

THE BEST OF 3D

Vortex

Spectrum	£8.99 cs
Amstrad	

Great value this compilation, feturing four excellent Vortex games, two of which - *Highway Encounter* and *Revolution* - would have been included in this list evenj at full price. What you get in these games are superb graphics and fiendishly tricky gameplay. A real bargain.

THING ON A SPRING

Gremlin

CBM	£9.95 cs, £12.95 dk
Amstrad	£8.95 cs, £12.95 dk

Bounce around the Evil Goblin's toy factory collecting pieces of the jigsaw that will show you how to destroy him and break his evil spell. Thing is a scrolling platform 'jump-em up' that will tease the brain and test your reflexes to their limit. Great graphics and a stunning Rob Hubbard sound track make this one of the best arcade adventures ever.

THRUST

Firebird

Spectrum	£1.99 cs
CBM	£1.99 cs
Amstrad	£1.99 cs

Terrifyingly sensitive controls and a large helping of real-life physics make this budget title an absolute must. Flying down through the caverns of an enemy-held planet, you have to pick up fuel and destroy hostile gun turrets without crashing into the tunnel walls. Tough enough as it is - but you've then got to make a return journey with a heavy load slung under your craft. Very mean, and very addictive.

TOMAHAWK

Digital Integration

Spectrum	£9.95 cs
Amstrad	£9.95 cs, £14.95 dk
Atari ST	£24.95 dk

One of the all-time great flight simulators, *Tomahawk*'s also got a strong combat edge to it. Flying a US Army Apache helicopter's a complex business, and the game's realistic controls make no concessions for learner pilots. Choose one of the three combat missions and you can fly out to attack ground targets, while keeping a weather eye open for enemy aircraft. Landscape, buildings and vehicles are all drawn in crisp vector graphics.

TRAILBLAZER

Gremlin

Spectrum	£7.95 cs
CBM 64	£9.95 cs, £14.95 dk
Amstrad	£9.95 cs, £14.95 dk
Atari ST	£24.95 dk

Imagine a multi-coloured checkered floor zooming toward you at break neck speed and you have a good idea of your view in *Trailblazer.* You must bounce a ball along a course of coloured squares - each of which affects your ball in a different way - whilst avoiding holes in a race against the clock and/or an opponent. Good competitive fun.

URIDIUM

Hewson

Spectrum	£8.95 cs
CBM64	£9.95 cs, £12.95 dk

The definitive scrolling shoot-em-up; blast the dreadnought and attacking ships while dodging around any large structures. Great metallic-looking dreadnoughts and the smoothest scrolling you'll ever see put this head and shoulders above the opposition. A game not to be missed, especially now CBM versions come packaged with the excellent *Paradroid.*.

VULCAN

CCS

Spectrum	£9.95 cs
Amstrad	£9.95 cs

An elegant, simple and ingenious wargame, *Vulcan* covers the Tunisian campaign of 1942-43. A huge playing area and air attack phase make the game an improvement over the same author's earlier works *Arnhem* and *Desert Rats. Vulcan* is fast, efficent and simple to play, and no self-respecting wargamer should be without it.

WIZBALL

Ocean

CBM	£8.95 cs, £14.95 dk
Amstrad	£8.95 cs ,£12.95 dk
Spectrum	£7.95 cs

A compelling and original ball game from in which you become the Wizball and attempt to conquer the Colour Creatures who are out to eliminate the spectrum and render the landscape grey and drab. Controlling the Wizball is great fun and makes this one of the most playable games to have appeared for a long time.

ZOIDS

Martech

Spectrum	£7.95 cs
CBM	£8.95 cs, £14.95dk
Amstrad	£8.95 cs, £14.95dk

The game of the toy, an icon-driven arcade adventure in which you fuse your mind with a Zoid, then stomp around the Zoidstar in search of pieces of the mighty Zoidzilla. Tactics are needed if you're to survive long enough to come near completing this thrilling game. It takes a while to get into but it becomes so engrossing that it's well worth persevering.

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The game is set in New York City in the late 1990's. You role-play the part of a gangleader who controls a group of misguided youths. The city has severley deteriorated. The brave citizens who remain are now in a life and death struggle with the ever increasing number of drug-crazed street gangs. The New York Police Department is severley undermanned.

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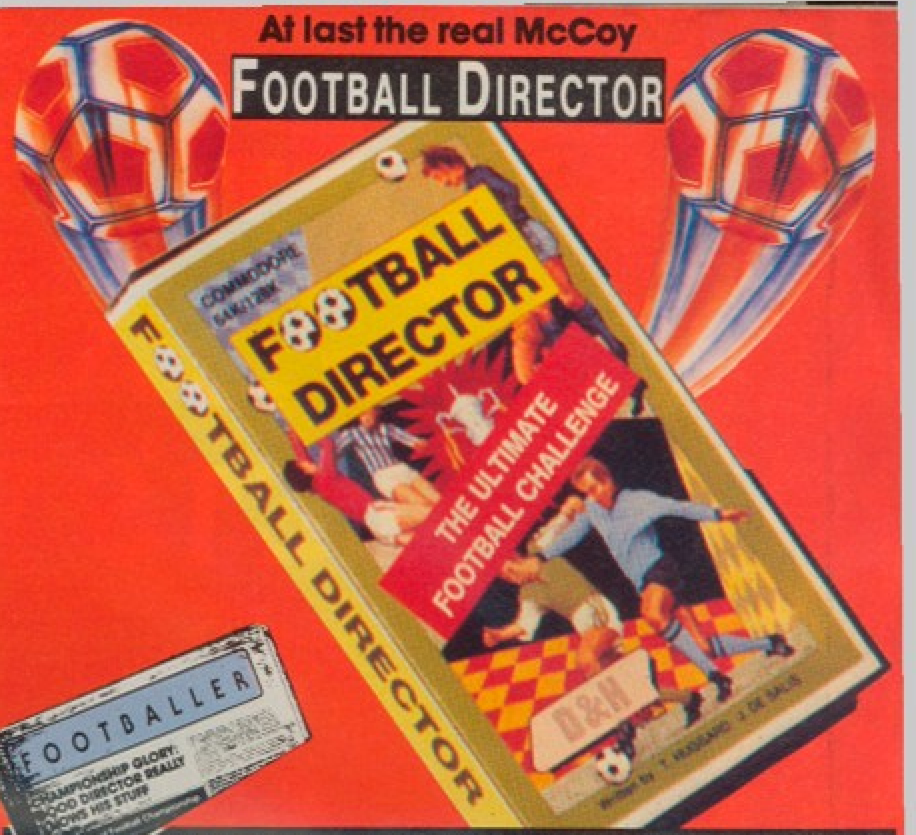
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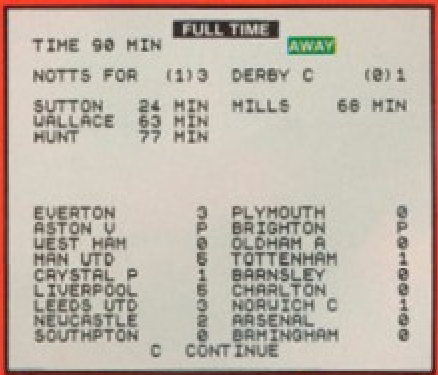

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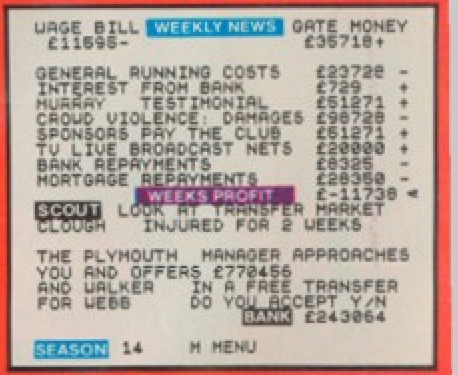

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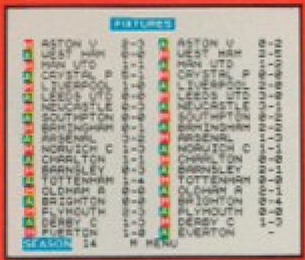
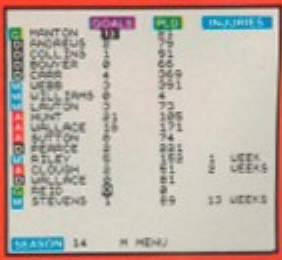
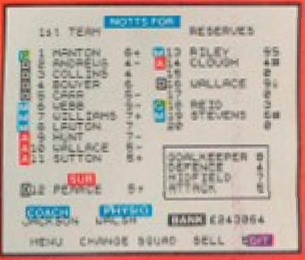
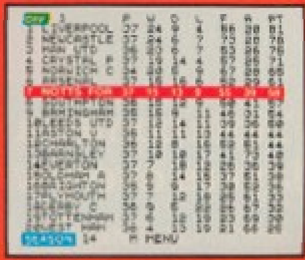
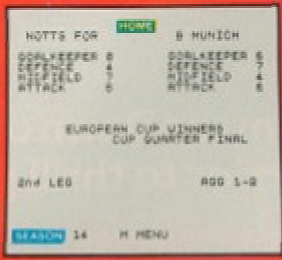
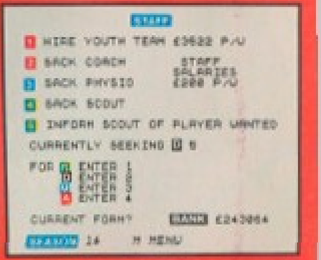

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PILGRIM

Times have changed for those of us who tap the keys in the hope of hitching a lift through the galaxy or duffing up a dragon. Join up with the Pilgrim as he launches a new section for a New Age of Adventuring - multi-user games, playing guides, Quilling and GACing, retrospective reviews, tips, and...oh yes...the latest, hottest games.

Your Guide to the Pilgrim's Pages...

The most authoritative reviews

Written by Britain's most experienced writers, you'll find news of the latest releases heading the section. This month you can check out Level 9's *Knight Orc* in detail and new games from Sierra On-Line.

Unique playing guides

Not just tips, but a whole new way of understanding and solving games. Each month we take a well-known game and give you a guided tour - but without giving away anything you don't want to know. That way, if you've got the game you can solve the problems you choose to, and if you haven't you can get further information to decide if it's one for your shelf.

New Ratings System

The Pilg has come up with four new ratings to really pin-down the games he reviews. That means you can be more certain than ever of not wasting your pennies. Check out page 81 for full details.

Retrospective reviews

Old adventures never die - but they do stop appearing in the shops. The Pilgrim will select a game from the best in back-catalogue software - often available at less than the original retail price - and give you the low-down you need. Games for beginners, difficult-to-track-down games, imports, and venerable classics - get ready for a great shopping trip down memory lane.

The MUG diaries...

Regular gossip from the worlds of MUD, SHADES, and other multi-user games. Make sure your personae behave themselves - they could end up in print!

Programming with Pat...

The Quill and *GAC* have brought the ability to program 'home-brewed' adventures to thousands. Despite their power, however, these utilities (and others like them) are not always that easy to get the best out of. Pat Winstanley will help you put it all together, and give you valuable tips for producing and marketing your own games into the bargain.

The timeliest tips

Solutions to readers' problems, provided by readers, for readers, together with puzzle-solving assistance from The Pilg and a world-wide network of adventurers to help you out of trouble.

Fitting it in...

As with all adventure columns, space is a problem - there's so much to say! To give you variety, and make sure nothing gets left out, we'll be alternating the Player's Guides and Pat's Patch with the retrospectives and MUG diaries. Check page 87 for further details.

KNIGHT ORC

SUPPLIER **LEVEL 9 / RAINBIRD** VERSION TESTED **ATARI ST**

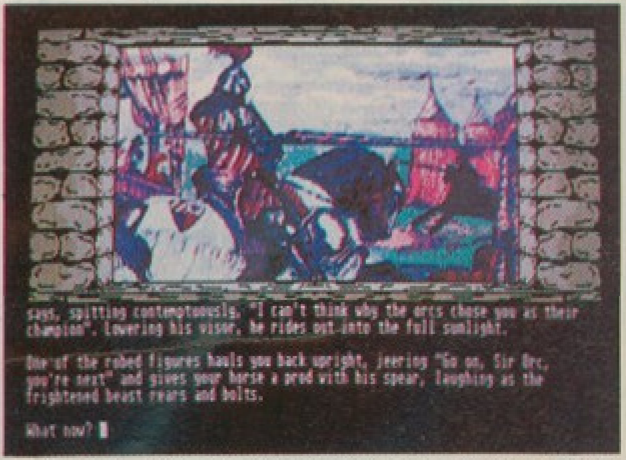
Knight Orc is probably the most important release for Level 9 since *Colossal Adventure*, their first ever game. Consider the following, and you'll see what I mean.

Level 9 - as most people know - grew up in the cassette market, cramming their games into 48K (or less), and combining fertile imaginations with programming skill to carve a reputation in the UK second to none.

Some of you might have noticed however that it's a long time since a Level 9 game was published by the company itself (rather than by Rainbird), and also that the last two releases from the company have both been compilations of previous titles - the *Silicon Dreams* and *Jewels of Darkness* trilogies.

In the meantime, we've seen Infocom titles made available at much reduced prices for the Commodore 64 and the Amstrad machines - as well as the 16 bit market. We've seen Magnetic Scrolls achieve a reputation on the basis of two games, *The Pawn* and *Guild of Thieves*, that has pushed them to the pinnacle of the media circus big top. But we ain't seen much from our old friends Level 9. But they have been busy, fellow Pilgrims, and *Knight Orc* is what they have come up with.

Knight Orc falls ostensibly into three parts - *Loosed Orc*, *A Kind of Magic*, and *Hordes of the Mountain King*. In practice, however, you play through only two sections since the latter two are joined together and you can move from one to the other without difficulty. The player takes the role of Grindleguts, your run-of-the-mill, unwashed, rat-gobbling Orc whose recent life-history is detailed in a short story that accompanies the game. As with most Rainbird software you abandon this booklet at your peril, since it is linked to the protection system and provides you with passwords (drawn at random from the text) which the program will, from time to time, prompt you to enter.



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says, spitting contemptuously, "I can't think why the orcs chose you as their
champion". Lowering his visor, he rides out into the full sunlight.

One of the robed figures hauls you back upright, jeering "Go on, Sir Orc,
you're next" and gives your horse a prod with his spear, laughing as the
frightened beast rears and bolts.

What now? █
```

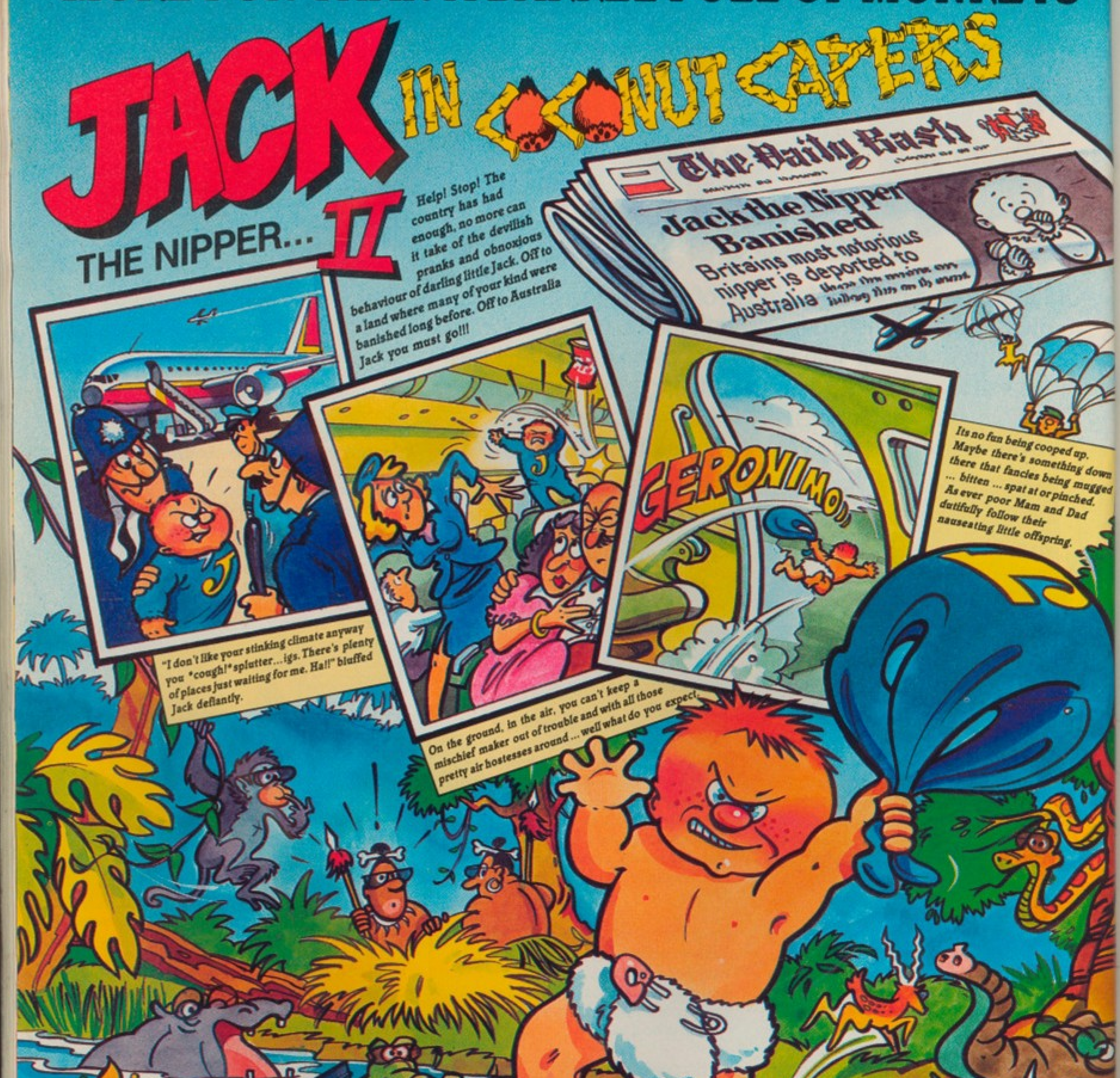
KNIGHT ORC – digitised graphics on the ST. 8-bit pics are also improved.

Grindleguts enters the game strapped to a horse and confronted by a burly knight who promptly dismounts him with his lance in a jousting contest. During this bit of scene-setting there really isn't anything for the player to do except sit and watch while his protege is un-horsed, knocked unconscious, and left to awaken later underneath a rubbish heap. Once you've abandoned your heap, the game begins in earnest.

Quite frankly, *Loosed Orc* is not the world's most exciting adventure experience. Level 9 explain that the main reason behind the section is to introduce players to the adventure system, but I can't see why this introduction should be so limited. Most adventurers would probably prefer coming to grips with the system by being thrown in at the deep-end, but in *Loosed Orc* your only objective is to gather sufficient items to tie together to make a rope that will carry you across into the next section.

With two exceptions, this task is extremely easy for any experienced gamester. Most

MORE FUN THAN A BARREL FULL OF MONKEYS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"I don't like your stinking climate anyway you *cough!*splutter...igs. There's plenty of places just waiting for me. Ha!!" bluffed Jack defiantly.

On the ground, in the air, you can't keep a mischief maker out of trouble and with all those pretty air hostesses around ... well what do you expect.

Its no fun being cooped up. Maybe there's something down there that fancies being mugged ... bitten ... spat at or pinched. As ever poor Mam and Dad dutifully follow their nauseating little offspring.

GREMLIN

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of the bits of string, hawser, cord, or whatever are both easy to find and of obvious importance - you just have to pick them up and tie them together. In at least one case you can find the desired object simply by typing FIND followed by ROPE or a few synonyms thereof. It's significant,however, that the two more challenging problems involve interaction with other characters in the game. Characters are Level 9's latest flavour of the month for the moment, so it's worth seeing how they appear in the game and what you can do with them.

Characters galore

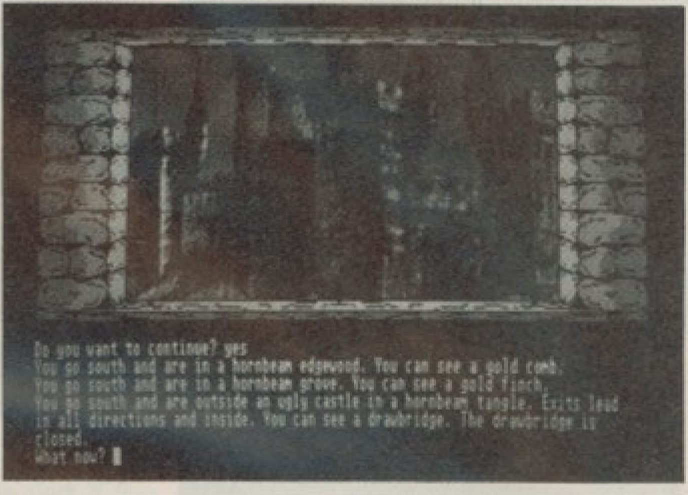
The first and most important point here is that there are a LOT of characters in this game! You've got animals, ranging from mice to wolves (though not very many of these), humans, orcs, a troll or two, a dragon, and a number of other creatures. Altogether there are around 50 different 'people' to meet and of these you will need to interact in a complex manner with at least six to finish the game.

The system allows you to ask characters for information, as in DENZYL, TELL ME ABOUT THE RUBBISH and also allows you to issue them with complex commands, as in PROPHET OF GREATER MANCHESTER, N, GET PUTTY KNIFE THEN ATTACK BOADICEA. The most useful combinations come, however, from using some of the more advanced commands, such as FIND, WAIT, and GO TO with other characters. For example, supposing you want some treasure to pay a toll and Denzyl is with you. You could enter DENZYL, FIND SILVER SALVER, GET SILVER SALVER, THEN FIND ME. This would have the effect of sending Denzyl off on a salver scouring mission, at the end of which he would (should) return to you with the desired object. Meanwhile, you can get on with something else. Of course, Denzyl might not find the salver, but that's another story...

The humans all take on roles in the game, of which the Prophet in the example above is only one. You'll also come across Ghengis, Odin, The Phantom of the Opera, Fungus the Boggit Man, and many others. Almost without exception their objective is to attack you, steal your treasure, and frequently kill you unless you run away or get lucky.

Fortunately, death simply sends you to Paradise, from where you can get back into the game after a couple of turns, assisted in your reincarnation by heavenly nymphs. You do however lose most of your possessions in the process and must recover these from the point where you expired - or from the humans who may have pinched them in the meantime.

Anyone who has played MUD will immediately recognise the role of the humans in the game. In fact for the first few minutes you feel very much in the Land of that notorious multi-user game. For this reason, most of the humans are obsessed with either killing you or stealing your 't' (treasure). They are very good at it. My only gripe about this is that with the number of characters in the game, play can often be held up as numerous characters interact, with little of interest going on apart from the exchange of blows and wealth. Since this is usually of no interest to Grindleguts it's questionable how much it adds to the game. I should also point out that while the game proceeds with admirable speed on the ST, I can't help thinking that 8-bit versions may find themselves slowed down a wee bit as the processor arbitrates amidst so many interactions.



```
Do you want to continue? yes
You go south and are in a hornbeam edgwood. You can see a gold comb.
You go south and are in a hornbeam grove. You can see a gold finch.
You go south and are outside an ugly castle in a hornbeam tangle. Exits lead
in all directions and inside. You can see a drawbridge. The drawbridge is
closed.
What now? █
```

Plots and places

Level 9 claim, curiously, that you shouldn't need (or attempt) to make a map of this game. The idea is to use the GO TO and FIND commands to move about, particularly since all locations that have puzzles are named, and the desigers obviously felt that it was therefore unnecessary to wander about step by step from one place to another looking for something to happen.

This is borne out strongly in the game, since if you start moving about using the N,S,W,E directions the program will suddenly pop up with a reminder that you could be using the more complex commands instead. Why enter a series of directions to reach the castle when you could simply enter GO TO CASTLE.

All very fine in theory, but in practise this didn't thrill the Pilg one jot. I LIKE exploring and making maps. I LIKE wandering through different places that may not have much purpose to them, but do add atmosphere to the game. The problem is that having implemented these GO TO commands with such thoroughness, Level 9 have come up with a game that's full of intermediate, poorly described locations that do nothing for the atmosphere. If you're just going to enter GO TO CASTLE, why have any locations in between at all?

More insidiously, after a while I found the skeletal nature of the map began to combine with the skeletal nature of the plot in an attack on the effectiveness of the whole game. The fact is that the from the start in *Knight Orc* you are not very sure of what's going on. The documentation tells you only that the aim of the game is to 'escape' - from what or where to is not described. This means that for the first two thirds of the game

A word about ratings...

The Pilgrim has given a lot of thought recently to the all-important question of ratings. As the software we see changes, so does our need to check on our criteria for evaluating it. Characters, graphics, advanced parsers - all these are common in today's games, so in A.C.E. you'll find the Pilgrim assessing games under each of the following categories:

SYSTEM - Nowadays we look for programs that go just a teensy-weensy bit further than verb-noun inputs, eh Pilgs? The SYSTEM category is the result of rigorous judgement of: the parser, its strengths and weaknesses; the vocabulary, size and userfulness; and, finally, the program execution speed - tortoise-slow or 68000 speedy? A maximum score under the SYSTEM label would contribute 300 to the overall verdict which carries a possible total of 1000. Programs that demand illogical inputs or deliver inappropriate responses aren't going to score highly here.

ENCOUNTERS - Today's Pilgirm expects to find more than an inert lump of fool's gold in them there hills. This section promises low marks for a simple object-oriented game, with extra points for the involvement of interactive characters. The more intelligent the character routines, the higher the score. Complex treatment of objects (e.g. multiple containers) will also contribute towards a maximum of 200 points contributed by this section to the total score.

CHALLENGE - A possible total of 250 points here, awarded for quality of puzzles and their complexity, plus the size of the map. Illogicality will rob you of points in this section, as will a game with only 10 locations. Sometimes a very high CHALLENGE score will indicate a game unsuitable for beginners - check mini-comments for details.

LANDSCAPE - When we're playing a game we don't want to be sitting at the keyboard - we want to BE THERE. A game that doesn't carry you out of this world is a poor contender for high points in this category. Programs succeed by using original, well-written, and well-designed locations. Graphics can help too, as can a logical and carefully planned map. But above all, the 250 points available here are for a game's power to drag you away from the screen and into the realms of imagination.

THE PILGRIMS VERDICT - Simple, just one figure, built up from the preceding sections, that gives the game a definitive rating. Out of 1000, a program that grabs 999 is going to be bought by every player on Earth. Anything under 500 is sub-average and to be treated like a sulky Gollum on a dark night - don't empty your pockets unless you're sure you know best!

you are wandering around from place to place, besieged by predominantly hostile characters whose behaviour is repetitive, traversing large tracts of poorly described scenery with nothing to offer, looking for something to do.

SYSTEM ■■■■■■▨
GO TO, FIND and a host of other advanced commands

ENCOUNTERS ■■■■■■▨
Poor character speech, but some very complex command sequences possible

CHALLENGE ■■■■■■■
Puzzles involving other characters can be fun

LANDSCAPE ■■■■■▨▨
Large playing area, but much of it of little interest

VERDICT 905
Keeps Level 9 in the running and promises well for the future.

In fact, the plot of *Knight Orc* is more than usually tortuous and very original, but you're unlikely to realise what's going on until you've played for a few hours. Not much of an incentive to a greenhorn, or even to an experienced player.

Magic and puzzles

One thing you can do, however, right from the start of Part 2, is experiment with spells. There are 21 of these, and you master a spell simply by forcing the game to display its name. In the most simple case, this involves reading a notice on which the name of a spell is written. They get steadily harder after that! As with many of Level 9's previous games, you can't complete this adventure without a thorough knowledge of each spell, which is used by CASTing it AT someone.

Many of the puzzles involve the use of magic, but the most difficult ones - as I've mentioned - involve other characters. This is for two reasons, first because the characters are in themselves unpredictable. Even though you may know the solution to a problem, the person in question may take a while to fall in with your wishes. Numerous RAMSAVEs will be required in many instances, since failure to get the situation under control can often result in death. Second, some of the puzzles comprise several stages of action. These are the most difficult to solve - some of them, I would say, very difficult indeed and not at all suitable for beginners.

For example, supposing someone were guarding a cup which you need to solve another puzzle. You might have to (1) lure them outside by dropping some treasure; (2) once they're ouside, command another character to distract them; (3) get another character to enter the premises and retrieve the cup; (4) lure the first character back inside so that you can then go back outside and get the object you need. This sort of puzzle needs an awful lot of trial and error - as well as careful thought - to get right.

The verdict

Knight Orc is at times a frustrating game, with vast areas of underdescribed locations that serve little purpose. In addition, the feel of the game takes a long time to seize hold of the imagination and the puzzles are - at the later stages - very difficult. It will not suit players who like a clear-cut game with obvious objectives, nor will it suit anyone who gives up easily. Furthermore, the number of characters is at times a weakness, adding confusion to an already confusing game.

On the other hand, the adventure system - while not as good as that in *Guild of Thieves* - is excellent and some of the character interaction possibilities are both complex and original. The graphics are plentiful and quite unlike the detailed hi-res screens that have become the norm in other games. The Pilg would compare them with water-colours - others thought they simply looked wishy-washy and indistinct. They're certainly a big step forward from any of Level 9's previous attempts with pen and ink.

FORMATS BOX

This is Level 9's largest game to date, and that means bad news for some players on the graphics side. All cassette versions will be text-only, and in addition the disk version for Atari 400/800 and Apple II will also be pic-less. Digitised graphics on the 16-bit versions are attractive, but 8-bit versions will be line-drawings only, and the quality of these cannot be vouched for at the time of writing. Otherwise there should be be very little difference between versions, though 8-bit formats may be slightly on the slow side because of the character-processing that's going on.

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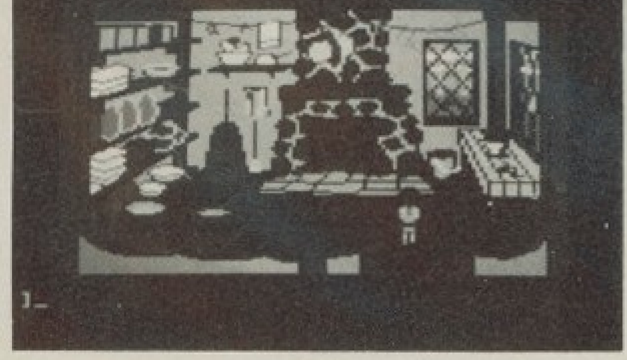
Knight Orc is an important release for Level 9. There's no doubt that it takes time to get used to, and there is a strong lack of direction in the game's early stages. Most committed players will not rest until they have cracked it, but how many stick it out to the end without recourse to hint sheet or psychiatric help is another matter.

KINGS QUEST III

Supplier **Sierra On-Line / Activision** Version tested **Atari ST**

Ever since adventures first started appearing, people have been trying to mix text input with graphic realism to give us a 'world' which we can not only communicate with, but can also see. *Kings Quest III* is one of these attempts, and not a bad one at that.

Kings Quest 3



The storyline is Wizard's Apprentice stuff - little Gwydion has to spend his days mucking out Manannan's mountain-top cottage. One foot wrong, and he's either turned into a snail - or worse.

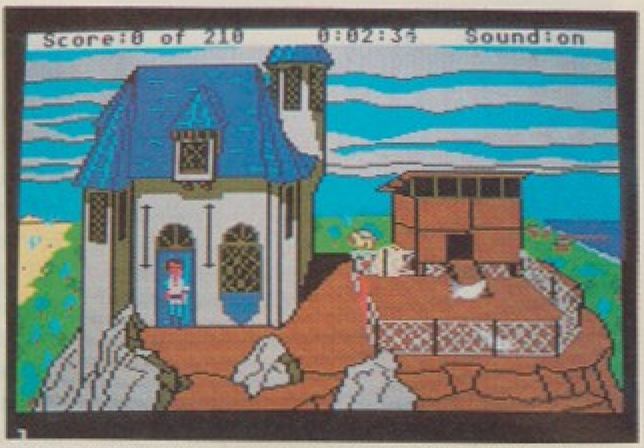
This in itself would be bad enough, but Gwydion's predecessors all met grisly ends when they reached 18 years of age. Manannan doesn't trust anyone who's old enough to vote, it seems, and prefers to dispose of them and appoint a new, younger assistant. Your time will come, and from then on your social life will be confined to the lily-pad

Unless, that is, you can escape. The program shows you a full-screen display of the room or location you find yourself in. You can move Gwydion about using either the keyboard or (if you have one) the mouse. Leaving the displayed room through a door or wandering off along a path sets the disk drive whirring to load in a new screen.

Keyboard control is more precise, and since you're on the top of a mountain with very steep cliffs on all sides, precision is definitely needed. Less drastic tumbles (down the steps, for example) leave Gwydion sitting there stunned, with little stars spinning round his head. Nice touch.

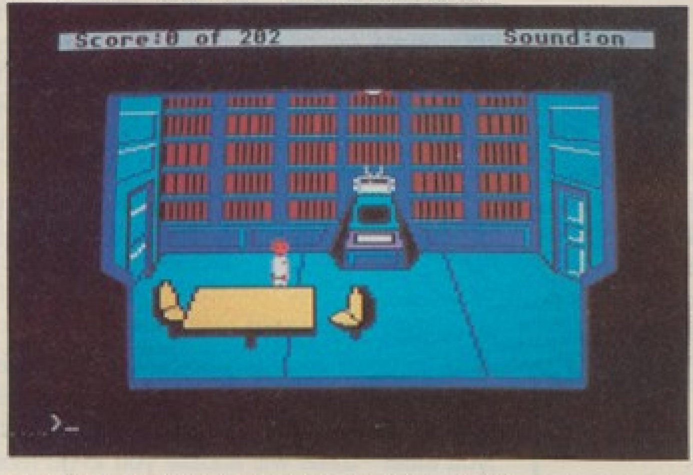
The game kicks off with some rather unimpressive music, then dumps you downstairs in the hallway. Manannan soon appears and gives you some chores to do - these change each time you play, though there aren't many alternatives - cleaning the kitchen, dusting the study - that sort of thing. It doesn't seem to make any difference whether you actually go and carry them out or not.

As you wander about, the wizard reappears in a puff of smoke and announces that he is going on a journey. Now's your chance to explore uninterrupted and plan your escape. Routine search and collect is the order of the day as you gather bits and bobs for Gwydion to use in brewing various magic potions which will enable him to fly to safety and further adventures.



KINGS QUEST III – Keep away from the edge! Feed the chickens instead.

SPACE QUEST – Same system as KQIII, but more hi-tech.



The graphics in this game are excellent, but - unusually for this category of software - the rest of the program doesn't seem to have suffered too much as a result. First, the parser is competent enough to deal with most simple inputs and the vocabulary has been well matched to the illustrations. It's also quite sizeable, with most synonyms catered for, and if it doesn't understand it will tell which word it's having trouble with. Inappropriate actions are generally greeted with a comprehensible explanation ('You don't need it', for example) rather than flat rejection.

Objects can be taken and used if you're close enough to them - in which case they disappear to join your inventory. Picking up some objects sends Gwydion into a flurry of activity - sweeping the floor if you get the broom, perhaps, or dusting the desk-top with the feather-duster. There's something rather touching about this frantic activity, over which you have no control until the poor kid drops the offending instrument and is ready to move on to other things.

In some cases you have to be quite precise about positioning the figure. One puzzle revolves around locating a certain book in the library. EXAMINE SHELF tells you about the book, but there are two shelves and no hint as to where exactly the book is to be found. Trial and error is the order of the day here, but then it would be in a real library too.

Apart from Gwydion and the Wizard, there are numerous other animals and characters who pace about on different screens - chickens, cats, pirates, almost all of whom can be interacted with in one way or another. The Pilg, having been brought up on a farm, particularly enjoyed feeding the chickens.

This is an undeniably attractive game on the ST. The graphics are bright, the gameplay simple but compelling, and the parsing quite adequate for this sort of quest. It is however of a slightly childish appeal - which means that it will probably appeal most to older children over 30 or younger kids under 15. Those in between may find the role of wizard's apprentice a little beneath them.

SYSTEM ■■■■▨▨▨

Good vocab for a graphics-based game

ENCOUNTERS ■■■▨▨▨▨

Animated figures respond to your actions

CHALLENGE ■■■■▨▨▨

Lots to do, but pace of game slowed by system

LANDSCAPE ■■■■■■▨

Great pics with animation, opening doors etc

VERDICT 740

A successful mix of graphics and text input, but more suitable for younger players

FORMATS'S BOX

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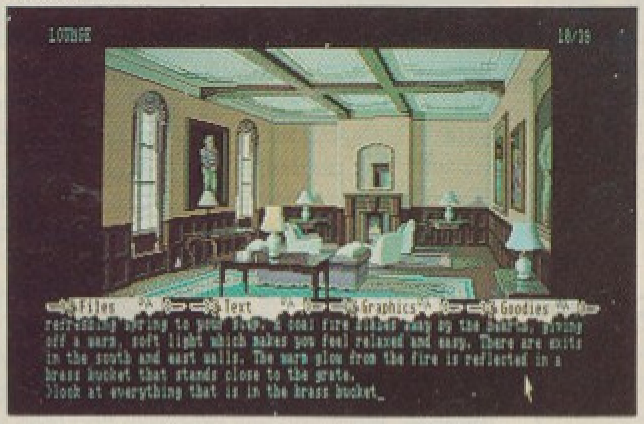
Guild of Thieves - Player's Guide

One of this year's most important releases, Guild of Thieves has already been nominated for the British Micro Game of the Year Awards and is available for most disk-equipped machines. It's not as hard as The Pawn, in the Pilg's opinion, for the simple reason that the scenario is somewhat more conventional - and that means the player will find most puzzles easier to come to terms with.

Guild of Thieves



refreshing spring to your step. A coal fire ebbs away by the hearth, giving off a warm, soft light which makes you feel relaxed and easy. There are exits in the south and east walls. The warm glow from the fire is reflected in a brass bucket that stands close to the grate.
>look at everything that is in the brass bucket_

The game comes with many encoded hints in the What Burglar! magazine, but there are still some areas of assistance that new players may require. This playing guide will help you crack the game (and perhaps tempt you to get it if you haven't already done so), but won't give too much away. If you're really stuck, check out some of the Pilg's tips (indicated by letters in brackets, which refer to the clues in the box on p87).

Getting Started

First off, check you've got a spare SAVE disc with plenty of space. This is particularly important if you're playing the Amiga version - we found that the operating system could crash if this disc filled up. Very upsetting if you've made lots of progress since your last SAVE.

Your mapping materials will of course come in handy, but there are some points here that need mentioning too. Most of the action in Guild takes place in three distinct areas - the castle, the temple, and under the hill. You really need only map these areas. Other locations in between are few and are quickly memorised. The most efficient method is to have three detailed and separate maps for each of the major areas.

Make sure when you build your map that you note down the name of each location. This is vital because of the program's GO TO command, which enables you to GO TO any named location. The catch is, however, that some of the locations have similar names and if you enter the wrong one you may find yourself heading off in the wrong direction.

This is important because you can kill yourself easily in the game by GOing in the wrong direction. In particular, you should be careful about using the GO TO command to travel to and from the castle and the temple. Inadvertently leaving the castle with some of the objects found inside will cause the gatekeeper to kill you, and at later stages of the game travelling to the temple or the beehive can drown you en route.

Tactics

Success in GOT demands careful manipulation of objects and a structured approach to the different challenges. You're best off starting with the castle - easy to get into (A), since you'll find that there are over 150 points to be garnered within, as well as objects required to solve other puzzles elsewhere in the game.

The Castle

The castle not only provides you with treasure but also with the means to solve several other important puzzles in the game. The first thing you need to find is some money (B) since it is vital that you have something to bet with. Prompt attendance at the race is essential to place your bet - and make sure you play for the highest stakes.

Once you've discovered - as anyone interested in rubbish will - that you can bank treasure within the castle itself, you won't have to work out how to get past the gatekeeper, who quite naturally kills you if you try to sneak past with any of his master's loot.

Points to note in the castle are:

1) Look under as well as on, in, and at things. Don't forget to try moving things.
2) Make a note of any words you don't understand as they could help you rise above later difficulties.
3) There are some items you can - and must - take past the gatekeeper. Find out which.
4) Here and throughout the game, if something doesn't raise your score when 'banked' then don't bank it.
5) The books in the library give several useful hints.
6) There are two puzzles where, although you may have guessed the solution, you might still have difficulty completing. These are the bear in the cage (C) and the rats (D).

The Castle

This group of locations, both above and under ground, is more a source of objects and information to solve other puzzles than treasure. The temple is linked to the set of locations under the hill, but the link is one way only - so don't look for it until you've explored the under-hill area thoroughly (F).

Collect everything you find here - some of it is bankable, but not much. All keys in the game will fit matching doors - in most cases the connections between keys and doors are obvious (usually related to colour).

Don't waste time by knocking your head against dead-ends. You can also save time when you've found your way across (G) the coloured squares by using the FUNCTION command - assign the sequence of moves to the specific function key so that you can cross all the squares with one press (if your machine has that facility).

Because the use of objects is often not required until some time after finding them, and because you can't carry an infinite number of items, it makes sense to have an object 'cache' where you can drop things until you need them. The Pilg uses the entrance hall in the castle for this purpose. Another useful function definition is therefore GO TO ENTRANCE HALL, DROP ALL EXCEPT LAMP which you can then follow by retrieving any items you may need.

The lamp should go with you everywhere - if you have any difficulty, check out (E).

Under The Hill

This group of locations holds many puzzles and places to explore. You'll need the gloves and the ivory key as well as the lamp before you enter - these will enable you to go most places without difficulty.

You should not show the berries to the gatekeeper - you may never get them back. In general, be careful therefore about SHOWing objects to people.

Don't be afraid to try going places that seem slightly inaccessible. The most difficult puzzle in the under-hill region involves crossing the hot coals. To do this you will need to have (not necessarily in this order) entered the mill, betted on the race (and won), left the mill with your possessions intact, and played art critic. Don't waste time killing yourself if you haven't done all this. You'll also need to get back - best done after playing botanist, so a SAVE is advisable before crossing the barrier.

While under the hill, remember the joke in the original Adventure game about killing the dragon with your bare hands. Here, it seems, as in Collossal Adventure, you don't know your own strength.

With two main exceptions (the coals and the spider) the solutions to the puzzles under the hill are almost all near at hand. Persevere in search of payment, food, release from cold embrace, and means of entrance are all close by.

A final Word

This guide should have given you a simple framework that will make success in Guild that bit easier. Normally we'd give more explicit hints, but because of the hints included with the packaging that approach isn't appropriate in this case. Solving GOT is as much an organisational and persistence problem as one of insight.

It's also a game in which you'll find it comparatively easy - with numerous saves - to amass at least 250 points, gained by entering rooms difficult to access and by banking treasure. What you will probably find then is

PILGRIM'S POST

...in which ye Pilg gives a breef hiftorie leffon and begs you, the readers, to correfpond with him on matters of the utmoft gravitie.

When I sat down to write my first adventure game review, the world - and the worlds we played in - were very different places. An adventure game was a text-only affair that had a vocabulary of under a hundred words, understood inputs only if they used those words in verb-noun format, and offered maybe fifty or sixty 'locations' to visit.

These games were often fiendishly difficult to solve. Programmers made up for the lack of input options by devising puzzles that would drive any sane player crazy with frustration. For some, led on by rather better offerings from companies like Level 9 or (now defunct) Camell Software, this frustration was the occasional price you paid for braving the unknown.

For others, it was a good reason to leave anything remotely resembling an 'adventure' on the shelf and in the shop. Adventures became the release for a small minority of games players - a dedicated minority, but a minority nevertheless.

All this is changing. Authors like Douglas Adams and Roger Zelazny have turned their skills to producing 'interactive novels'. Magnetic Scrolls/Rainbird and Level 9 have given us games with phenomenal illustrations, powerful parsers, and huge vocabularies. Infocom - the text-only traditionalists - are now breaking new ground with greater use of interactive characters and even - gasp - rumours of graphics in their new games.

However, it's a sad fact that there are still some companies around who think they can get away with producing products that haven't really developed since the pre-Hobbit era. You can be quite confident that this column will be ruthless in its expose of software that doesn't come up to scratch. But we'll never criticise without being constructive, and we'll always be keen to hear from dissenting voices - and keen to publish them too.

The companies who produce adventures and the people who write about them rely absolutely on YOUR judgement and discretion. Your opinions are of the utmost value, and the Pilgrim's Post column is there for you to fill. Any opinion you express on this page will be read by the people who matter - and that's one step closer to seeing the market change according to YOUR wishes. So don't be shy - it only costs a stamp!

To contact the Pilgrim and fill this space with **your** views on the world we play in, write to:

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Screen shots taken from the Amiga version.

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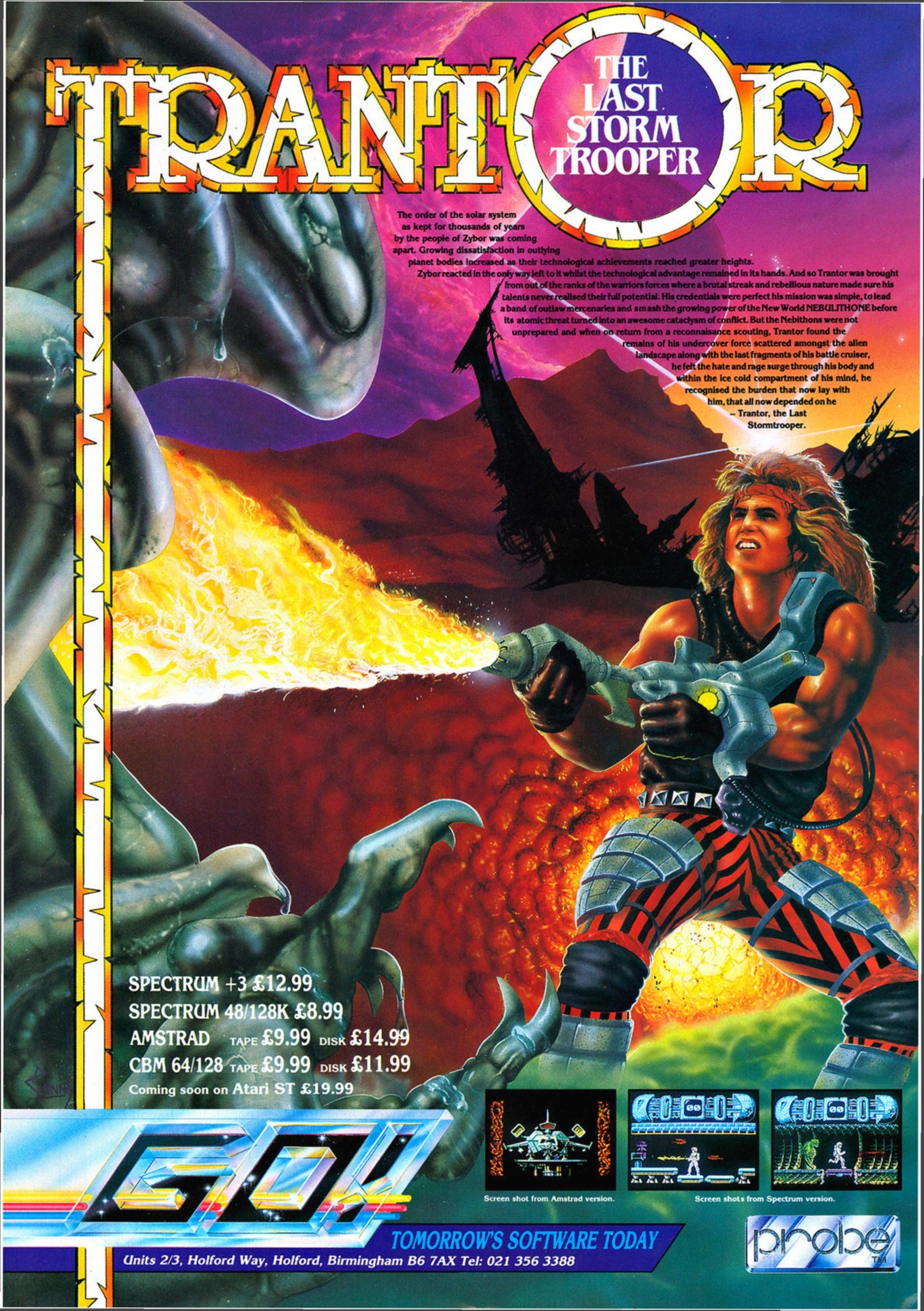

TRANTOR

THE LAST STORM TROOPER

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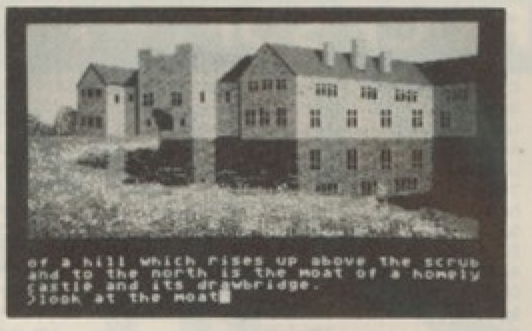
Screen shot from Amstrad version.

Screen shots from Spectrum version.

TOMORROW'S SOFTWARE TODAY

Units 2/3, Holford Way, Holford, Birmingham B6 7AX Tel: 021 356 3388 that there are one or two puzzles you simply can't solve - or don't even know that they are puzzles!

To help you avoid this situation, remember to hang on to objects found - almost all have their uses - by storing them in your cache. Never risk losing an object without SAVEing first. That way, you will prevail in the end. And of course we'll be printing more tips on the game in forthcoming issues. Membership of the Guild is within your grasp!



```
of a hill which rises up above the scrub
and to the north is the moat of a homely
castle and its drawbridge.
>look at the moat
```

Next month...

Next month you can wallow in the new MUG diaries - we kick off with an intimate dig'n'delve into the world of SHADES. And of course there will be the first instalment of the A.C.E. tips section. If you're wondering why we won't be printing tips every month - just check out next issue! There'll be enough to last you for aeons! Not to mention the first of the Pilg's Retrospectives. See you in October!

Pat's Patch

Pat Winstanley, ex-editor of Adventure Contact, kicks off with the first instalment of her regular column for adventure authors...

Whether you're a would-be adventure writer, or already a proficient coder, this column is tailor-made for you. Over the next few months we'll be looking both at the general theory of adventure programming and the actual coding, using such popular utilities as *Graphic Adventure Creator*, *The Quill*, and *Genesis* - programs that allow you to write your own adventure games without any programming experience. There are now many commercially-released games written by 'home-brewers' and there's no reason why, with imagination and perseverance, you shouldn't join them.

Guild of Thieves Clues

A. Just call out to the gatekeeper and ask him to lower the drawbridge - you'll probably need to shout.

B. Check out the cushion.

C. Try SMEAR you-should-know-what ON what-you-should-have-caught. Then feed it to the bear.

D. Vandalism is the order of the day. One of the pipes can be PULLed. Then it's bath-time for your furry friends.

E. The lamp fits in your pocket.

F. PULLing or MOVEing the statue will send you plummeting down into the well. DROP the statue and SWIM NORTH.

G. Make a map of the grid, using the description as a guide. You need to follow the reversed order of the rainbow (WOBNIAR), which is violet, indigo, blue, green, yellow, orange, and red.

There is, however, one big problem you're likely to find when using a utility - namely, giving your game that certain individual touch that makes it stand out from other home-brewed titles. To help you, we'll be looking at routines such as combat, containers, interaction, screen layout, redesigned character sets, and generally customising your adventures so that they don't appear cloned.

We'll be covering all the popular utilities so, for those of you who have yet to sample the delights of creating your own game, this seems an appropriate moment to check out what's available:

The Quill

This program is still widely used despite its age and is ideal for beginners due to its simple structure. Most commonly-used routines are built in, so coding is straightforward. However, this simplicity is a drawback when you have more ambitious ideas, as the program is relatively inflexible.

The Quill was the first of the adventure utilities on the market and has since spawned a number of add-on programs, such as *The Illustrator* (for adding graphics). One of its advantages is that it is available for a wide range of machines, so that in theory a game you develop on, for example, the Spectrum can also be made to run on the Amstrad and CBM64 with little modification.

Friendly or Flexible?

For more flexibility than *The Quill* you will probably need to resort to a less user-friendly package such as Genesis (available for the Amstrad only at present) or *ABS* (for the Spectrum). *Genesis* will do virtually anything you like, but is difficult to learn. *ABS* also does more or less anything, but it requires a good knowledge of BASIC to operate. So beware - both these utilities are for experts only!

Perhaps the best compromise is *GAC* from Incentive. A beginner might find it harder to learn than *The Quill* - although it's really not *too* difficult - but it scores over *Quill* in its flexibility. With *GAC* you are provided with simple building blocks which can be combined in almost any way to produce the effect you want. *GAC* also has the advantage of an integral art package - something which is an extra with *The Quill*. *GAC* is available for Amstrad, BBC, Spectrum, and Commodore machines, with an ST version currently under development.

PAWS for thought

Fairly new on the market, and currently available for Spectrum only (other machines soon) is Gilsoft's *Professional Adventure Writer*, or *PAW* for short. Despite the company's protestations to the contrary this appears to be an upgraded version of *The Quill* with all the major features of the Gilsoft programs integrated into one package. A system of overlays is used to bring various parts of the program into use as and when required.

Like *Quill*, *PAW* is very easy to get into, and as it uses the same layout, people upgrading from the earlier program will find it very familiar right from the start. But there the similarity ends. The whole program encourages you to customise your game, while at the same time allowing the beginner to work through the standard system to produce a game.

One very useful feature of *PAW* is the opportunity to create sub-processes in the code which can be called as required for other sections. The manual gives speech with other characters as a suggested use for these sub-processes but the possibilities go much further than this - different characters might, for instance, be given their own distinctive text style.

The parser, too, is much better than *Quill* - no more will the poor player be restricted to verb/noun input with all the problems that brings. One minor quibble of mine though is that *PAW* doesn't recognise full words - only the first five characters. Distinguishing between words such as **schooner** and **school** will therefore cause problems. No doubt I'll find a way round it in time - so watch this space!

For the foreseeable future, *GAC* and *PAW* appear to be the obvious choices for anyone contemplating writing an adventure. Both are tremendously flexible, while fairly easy to get into. Each has features the other lacks, but a little thought should solve most problems.

Finally, don't forget that this column is there to serve you. If there are any special effects you'd like to include in your games using an adventure writing utility and can't see how to achieve it, write in to me at A.C.E. and I'll do my best to come up with a solution in a future issue.

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TRICKS 'N' TACTICS

It may not be cricket, old chap, but let's face it – sometimes the only way to get a high score is to CHEAT! Or at the very least pinch a trick or two from the experts. Tricks'n'Tactics sends the balls your way with a selection of red-hot tips on top games – so rip off the old school tie and get down to some serious action.

RENEGADE

Amstrad

STAGE1: At the far right of the subway is a ledge that can be used to your advantage. Walk into your foe and push him back to the ledge. Then use a flying kick to knock him over the edge. It may take three or four attempts so make sure you're not grabbed from behind.

Dispose of the pipe-wielding guys first: if one of these is left when the Boss turns up you are in big trouble.

If you manage to knock an opponent down, crouch on top of him and pummel him to death. The black guys only take one punch but the white guys need three.

STAGE 2: The attack of the bikers: in the first part of the level the bikers will attempt to run you down, riding on from either side of the screen. Stay in the middle and as soon as a bike comes on the screen start backing away, earning yourself some thinking time. Then do a flying kick to knock the rider off. Knock four riders off and it's back to the fighting.

Level two has another of those useful ledges, this time at the far left, so use it to rid yourself of first the pipe swingers and then the masked muggers. If you're using the pummelling technique, pipe swingers take two hits when down and masks take three.

STAGE 3: It's the girls' chance to have a bash on level three. Some wield whips and others pipes, and this time there's no ledge to help you out. Use kicking as much as possible: one flying kick will kill a blonde outright. The black girls are tougher, but it still only takes two pummels to finish them.

The big (and we do mean big) problem on this level is gang boss Bertha. Use kicks to wear her strength down - she can't be knocked down so don't try. Now back off and let her charge you. Leap up and kick as soon as she starts her run-up, and this will finally finish her.

STAGE 4: One hit from any of these slashing thugs and it's curtains, so keep moving and only use kicks. One kick will floor them, but don't pummel - you don't have time.

STAGE 5: The same as stage four, but the boss is shooting at you so keep moving up and down the screen to avoid his bullets. Once all the thugs are dead, close in on the gang leader: he'll put away his gun and use kicks. Good timing is required if you're to outkick him but whatever happens, don't back off. If you do, he'll draw the gun again.

With the last boss disposed of you get your girl. Keep a close eye on our hero's hands! ●

HOT TIPS...TOP PRIZES!

Every month we'll be giving away £££-worth of software to readers who send in the best playing tips, pokes, maps, and hi-score tactics...

Tip of the month - gets the **six top-rated games** for their machine in the current issue of ACE **completely free.** A prize usually worth at least **£60.00!**

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So get down to it! Send your tips to:

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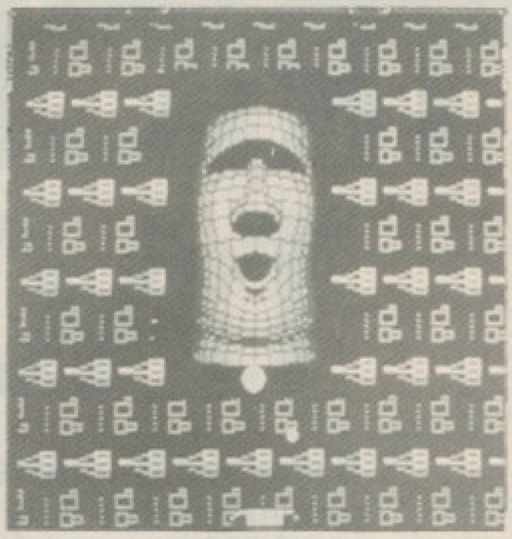
Don't forget to include your name and address (clearly written in block capitals) and the name of your computer – so we can pick the right prize!

ARKANOID

Spectrum & ST Cheat Mode



ATARI: Hold down Caps Lock and type DEATHSTAR while the game is booting, then press S to cycle through the screens and choose which one you would like to start on.

SPECTRUM: First you've got to score enough to register your name on the high score table – shouldn't be too difficult. Enter PBRAIN as your name and you can then press the space bar at the end of each game to re-start on the same screen you were last on.

Screen Tips

If your sense of fair play won't let you use the cheat modes, then at least try these tips. They'll help you through some of the tougher screens.

3 The bottom row of bricks is indestructible save for the three to the far right of the ST screen or the far left of the screen on the Spectrum version. Your best bet is to demolish the three bricks and try to hit the ball on the very left (or right for Spectrum) of the bat so that it strikes the wall a little below the gap and bounces in and along. Best benefit to get here is the sticky bat, because very careful aim is needed. Keep your bat on the same side of the screen because chances are the ball will come flying through the gap at some speed.

8 There are only seven blocks to hit on this screen. They are all in a vertical line in the middle surrounded by masses of indestructible bricks. Hit the first brick and try to aim your ball for the far left – the ball will be trapped and bounce around frantically, demolishing the remaining bricks. Best benefit is the laser.

11 This has three rectangles on screen; two smaller ones inside a larger one. Spectrum owners, though, only get two rectangles. All the bricks need two hits. Take out two bricks from either corner then aim your ball for the gap - you should be able to trap the ball between the rectangles. You'll get no benefits to help you on this screen.

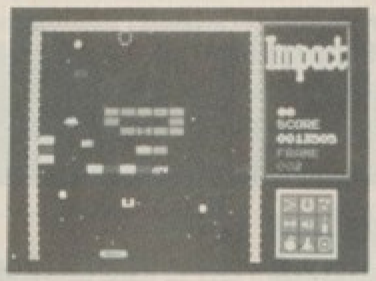
15 This is tough because the first row of bricks is so low and your ball is returned so fast. Try to blast a hole all the way up, either right in the middle or to one side, so that your ball can work from above. Watch out for the eight double hit bricks near the bottom and the eight indestructible bricks near the top. Any benefit you can get will help on this screen, but the laser is particularly useful.

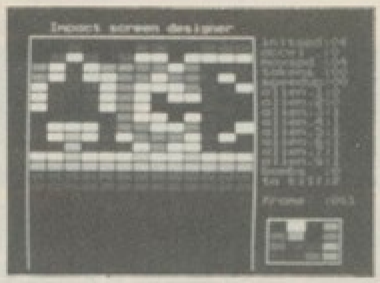
27 Six rows of bricks on this screen; two coloured rows sandwiched between four rows that require multiple hits. Again, concentrate your attack in one place so that your ball will be trapped and can demolish the blocks from the inside. Lasers are a Godsend on this level.

33 The majority of the screen is taken up by 'The Dimension Changer', a huge head that issues what look like 10p pieces from its mouth (squares on the Spectrum). The 'coins' head for your current position so try to keep your bat in a place where the ball is less likely to be returned, and zip across to return the ball. Hit the head enough times and you'll destroy it, completing the game.●

IMPACT

Audiogenic's solid gold bat-em-up laid bare for you: RpM of A.A. fame brings you those level codes.





LEVEL	CODE
11	Gold
21	Fish
31	Wall
41	Plus
51	Head
61	Fork
71	Road
(81	User)

If you want to impress your friends with a massive score, use the screen designer to create easy bonus screens packed full of tokens. Once you have played your screens (gaining many lives and a huge score on the way) the game will wrap back to screen one, giving your score the legitimate look.

BARBARIAN

Barbarian **stoops** to conquer - or at least he does in the game by Psygnosis. For astoundingly enough, if you use the Pick Up icon continually while being attacked, you become invulnerable. No matter what manner of bad guy attacks Hegor, so long as you keep him bending down to pick things up he'll survive. With that in mind, here are a few tips to help you on your way.

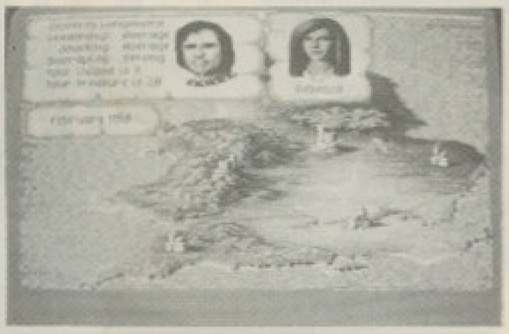
First you may be wondering how to **kill** the **IRON MAN** in order to get the **bow.** Well the simple answer is that you can't, nor can you pick up the bow even if you do get past him. It's just a **decoy,** the real bow being a little further on.

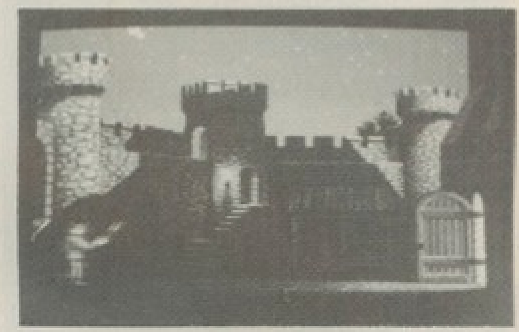
If you're **stuck** at the **PENDULUM** then look at the bridge arch below, where a skull is carved in to the keystone. If you position Hegor's feet one each side of this, wait until the pendulum swings level with his forehead and then make a run for it you should just get past - but this still requires split-second timing. Another way to tackle the pendulum is to do as above but run only until you are below the pivot. Then use the old pick-up trick, further rotations will not harm you until you decide to move on and, as you are half way through already, not much timing is required.

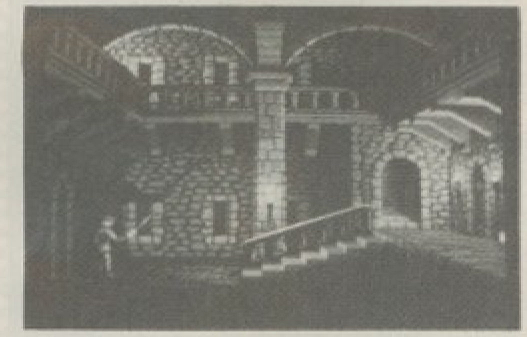
If it's the **WIZARDS** who are giving you trouble then use the shield with the defend icon to deflect their fireballs and run and duck (pick up) past them. This also requires great timing.●

DEFENDER OF THE CROWN

Amiga Strategy







General Tactics

1.Choose Geoffrey Longsword as your character; Geoffrey's very good at swordplay and that's what the game hinges on.

2.Spend your gold on soldiers at the beginning of each turn; buy knights whenever possible, as they seem to have more staying power when the going gets tough, particularly when you're on the offensive.

3.Raid other castles as often as you can to replenish your stocks if you get low on gold

4. Don't bother with the jousting; it's incredibly difficult to win and irrelevant to winning the game. If you're summoned to a joust, it's safest to joust for fame and not for land.

5. Capture your opponents' home castles – you then get all their land as well.

6. Keep your territories grouped together or you will be cut off from your home base, landing you in all sorts of trouble.

7. Return home at the start of each turn to transfer your home soldiers to your campaign army.

8. Keep some soldiers at your home castle at all times; losing your base means the end of your game.

9. Robin Hood will help you up to three times; use him only when you think you might run into stiff opposition.

10. Rescue the Saxon lady when prompted.

11. Be cautious about attacking a county when you've just seen it change hands; the victor's campaign army may still be lurking there.

12. Make sure you heavily outnumber the defenders when attacking a castle ; if you don't then you won't have a chance. Select 'fierce attack' if things look promising.

13. Wait to see the size of the enemy's army if you come under attack, then act accordingly – select 'wild retreat' if the going gets tough.

Swordfights

Keep your mouse arrow on the door through which the enemy guards came, making sure the arrow is just above ground level. As you clash with the guards press the mouse button frantically. Follow the same procedure once you're inside the castle.

Attacking castles.

You're trying to knock down the outside wall each time so you must find the correct range. Each time you fire, memorise the exact position of the catapult by taking a bearing on the pixel patterns beside the stone. After firing and demolishing a portion of the wall, return the catapult to the exact firing position and move it up one pixel before firing again. Carefully move the catapult head up one pixel from the firing position each time and you shouldn't have any difficulty.

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EXOLON

Amstrad

1. Static obstacles: These pose no threat apart from obstructing you. Let rip with a missile to destroy them.

2. Mines: These need to be jumped over.

3. Pneumatic Hammers: These rise from the ground and you should wait untill they disappear before jumping across.

4. Single shot cannons: Walk toward these and duck before the bullet hits you. Loose off a missile to destroy these.

5. Multi shot cannons: Keep advancing on these firing all the time. Duck to shoot the low bullets and stand up to shoot the high ones. Missiles have no effect on these so you have to walk past them. At all costs DONT JUMP.

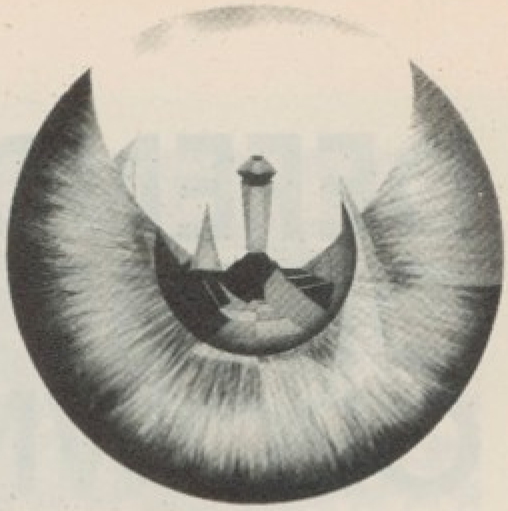
6. Combination Cannons
Very tricky to get past these, keep firing and advancing and fire a missile to destroy the single shot part of the cannon. Then treat as normal multi shot cannon.

7. Airborne aliens: These all attack in various formations, and follow different flight paths. Some attack in wave forms and you should keep jumping and firing. Delicate timing is involved because a jump at the wrong moment could result in your losing a life.

8. Homing missiles: Try to change platforms just before the missile hits you and fire a missile to destroy the guidance pod.

9. Fast/slow missiles: These come at you slowly then suddenly speed up when they get half way across the screen. Fire fast and keep ducking and jumping.

10. Swarmers: Destroy the red pod and they come swarming at you - fire like mad and keep firing as you duck and jump.



SENTINEL

The ST Codes

Firebird's amazing 3D think-em-up sees its best version yet on the ST, with faster panning and better graphics than any of its 8-bit incarnations. There's also a marvellous help facility built in: just look up at the sky, press HELP and you get an aerial view of the landscape from the point of the sky you're looking at.

That's all very well of course, but it does mean you waste time looking up and then back down again. More seriously, HELP starts the sentinel and sentries turning and scanning, so like U-turn it should only be used once you've looked around carefully and worked out your plan of attack.

The best form of defence

The sentinel is the key to each landscape because he's the last thing you can absorb. Where there are sentries, the priority is to get above and absorb them as soon as possible. This usually means finding a gap in the scanning patterns, building a very high tower and getting on it.

This 'gung-ho' approach can backfire badly but it's quicker and easier than a gradual height gain, especially where there are a lot of sentries - say three or more. Keeping track of so many scans can be very difficult, but as long as you get high enough and the sentinel's looking the other way you can absorb anything that looks at you. Once that's done of course you just run round the sentinel, scouring the landscape for trees - assuming you're going for big leaps through the landscape numbers, that is.

Immediate scans

Often your initial look round will show that you're about to get scanned. When you're in a gully this can be a serious matter, as you can't use the long transfer out of danger. If the scanner (sentry or sentinel scanning you) is very close you may escape its gaze simply by a transfer of one or two squares to one side.

Where the scanner's some distance off on the other hand, you may be able to block its gaze with a tree. If this means being half-scanned instead, don't bother: you may as well hyperspace yourself and save the unit that tree would cost you. Sometimes you can block a scan perfectly though, so do check for this.

The codes

Here's a run through from 0042 to 1024: large gaps indicate landscapes with a lot of energy, and that tends to mean a lot of sentries. Try out a few of the hot ones - 335, 507 and 845 are particularly tough!

0042	67887349
0048	57765168
0071	33586247
0086	02166969
0097	74976881
0119	79854657
0124	47578848
0144	64558555
0156	99076986
0187	93445012
0206	92896748
0237	72814583
0267	21622814
0302	64656793
0335	61440960
0366	72095535
0394	73464697
0416	99508761
0442	15687207
0471	45608736
0507	61743526
0546	33972766
0576	46498401
0605	99578366
0634	92482276
0661	61089974
0680	67957977
0718	06092762
0745	25677845
0767	77004694
0787	58045771
0808	07855664
0845	76690341
0886	58739454
0916	33117306
0937	48469772
0967	10905081
0994	85851974
1024	15566662

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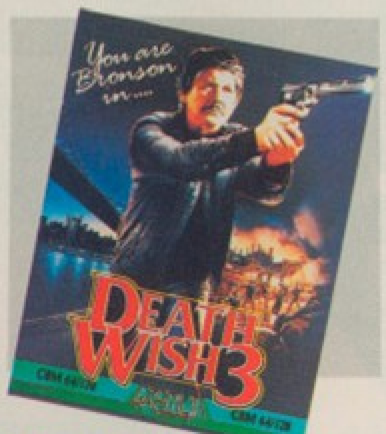

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AMSTRAD
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THE BLITTER END...

Starry-eyed

'We've got an ace product here,' enthused Robert White of Durell Software, 'it's called *Popular Astrology* and it can do natal charts and interpretations drawn from 300K of text'. So what's funny? Well, apparently the program, on first booting up in the Durell office, promptly predicted dire financial prospects for the company.

Popular Astrology will be out on the streets by the time you read this – let's hope Durell aren't out there with it.

Dirty old ROMs...

Here's one you can try if you've got an Amiga, Kickstart 1.2 in ROM, and two pairs of hands. On the workbench, hold down both ALT keys and both SHIFT keys. Now press each of the function keys in turn (this is where the extra hands help) and you'll get little messages appearing on the status line – programming and design credits, that sort of thing. Now, still holding both ALTs, both SHIFTs and the F1 key, change the disk. For a split second you'll get an interesting message containing a rather naughty word, and expressing some unkind thoughts about Commodore's policies towards the Amiga. For those of you without an Amiga, we suggest you pop down to your local Commodore dealer with a friend and test it out. We'd dearly love to print it here but there are laws against that sort of thing.

The A.C.E. team...

Steve Cooke (co-editor)
Worked as a despatch rider in London until addiction to arcade games led him to deliver a job application for Personal Computer Games, where he became deputy editor. Later editor of The Home Computer Advanced Course. Widely respected as an adventure column writer, Steve also finds time to write plays in his hideaway retreat near Lands End in Cornwall. Favourite games: Impossible Mission, Impact, and PacMan.

Pete Connor (co-editor)
Erstwhile Personal Computer Games staff writer and later editor of Amstrad Action. Wandered in to the realm of the dreaded IBM PCs, but strode out to join ACE. Despite a disposition tending towards inertia, still enjoys a fast and preferably furious shoot'em up. Favouritegames Wriggler, Boulderdash, Plutos.

Andy Wilton (reviews editor)
Cambridge boffin and ex-Amstrad Action hacker supreme, abandoned a promising legal career to achieve world-renown for his infinite lives poke on Blaby's Wriggler. Pressure of the limelight forced him to move to Micronet, where he ran the Amstrad database. Received nasty letters complaining that he was reviewing too many games, so retired to ACE and proceeded to hack everything in sight. Favourite games: Thrust, Sentinel, Head over Heels.

Dave Packer (staff writer)
Wrote his own games on a UK101 in 1981 and realised he was in danger of becoming an obsessive games freak. Went out and bought an Atari 400 to cheer himself up, knocking up his first million on Defender seven weeks later. Realised at this point that he WAS an obsessive games freak. Tried to cure this affliction by buying an Electron. Gave up the struggle after four weeks and bought a Commodore 64 followed by an Atari ST. Favourite games: Archon, Encounter, Ultima IV.

Andy Smith (staff writer)
Andy's personal details are too shrouded in mystery and dubious circumstance for us to report them. He carefully arranged to be on holiday while this item was being written, but we do know that he spent his time chopping up meat for pies before starting to chop up aliens instead. Rumoured to have strong affections for play-by-mail games, Vulcan, and Atari STs – but his girlfriend won't let him have one. Sensible of her, we think.

See you at the PCW Show

Find ACE on the Future Publishing stand in the gallery of the National Hall, 25th – 27th September at Olympia.

Next month...

Issue 2, in the shops on October 1st, will be bursting with reviews of the latest red-hot releases, including Terrapods from Psygnosis, Jack the Nipper 2, Eagles Nest on the ST, plus new releases from Novagen, Microprose, Alligata and many more.

PLUS

- We test **30 budget classics** from **Boulderdash** to **Decathlon.** Games that once ruled the charts at full-price, but can now be **snapped up** for a positive pittance.

- **Joystick Jury** – the right stick can **beat the stuffing** out of the toughest game. ACE puts its finger on the button and discovers which rods belong in your **armoury** and which belong in the **bin**.

- **Massive Tricks'n'Tactics section** with screen-scorching tips on Xor, Quedex, Mask, Leaderboard, Paperboy, Boulderdash, Decathlon, and much more – including the Pilgrim's **Players' Guide to Hitchhikers Guide**. Head off through the galaxy and make this autumn your highest scoring season ever!

- In our music section we check out **MIDI interfaces** for your micro – the cheapest, the best – and the pits. Who cares about keeping up with the Joneses when you can **blast** them away with music?

- **PLUS** ST shoot-em-ups – we report from the battlezone on which conflict gives you more for your money; a report from the Science Fiction Convention; and a host of news, reviews, and comment to keep you at the very forefront of the computer entertainment scene. See you in October...

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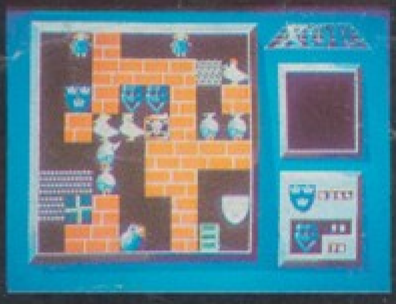

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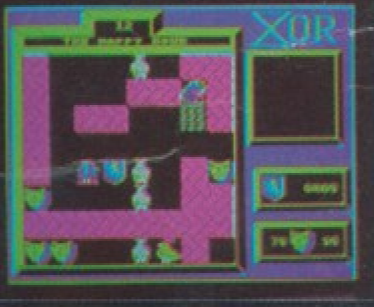

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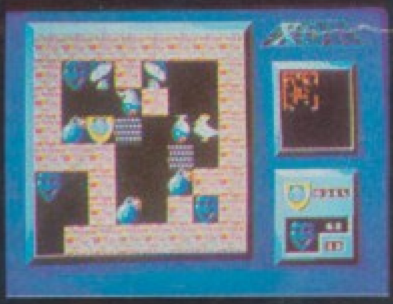

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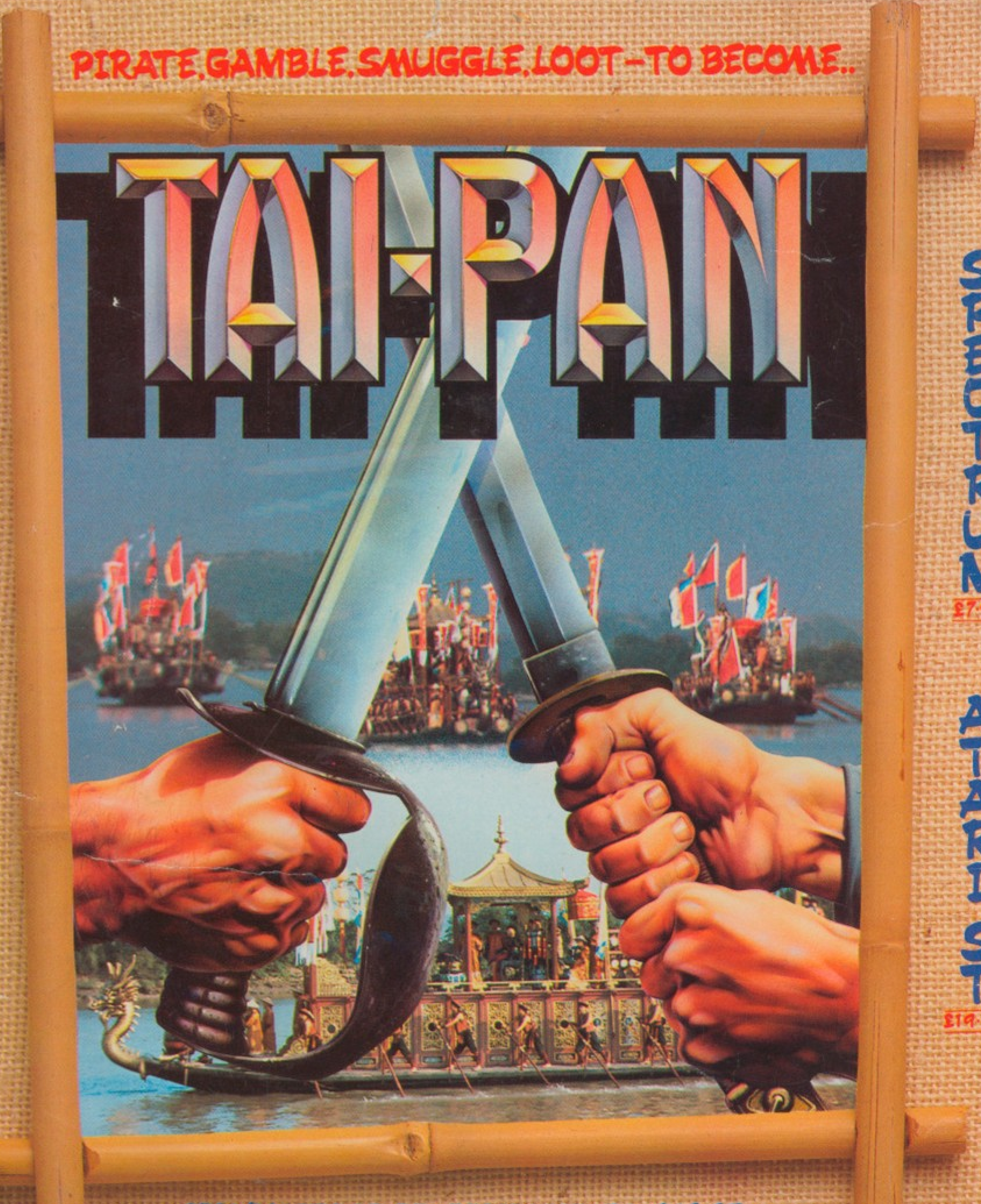
PIRATE, GAMBLE, SMUGGLE, LOOT – TO BECOME..
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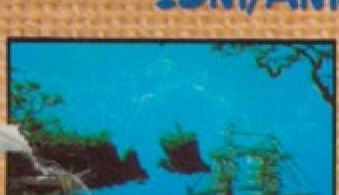

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Screen shots taken from Atari version.

ocean

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